GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.

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litle:
Eerfect score:
Eequence:
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Maximum
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Maximum Match 100%
Listing first 45 summaries
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AAR05469
AAR60233
AAY82196
AAR05513
AAR72456
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                             Tumour necrosis fa
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Sequence of new tu
Sequence of modifi
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                    Human tumour necro
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12	12	12	12	12	12	11	11	10	9	6	9	15	15	15	15	15	15	13	13	13	12	12	11	11				9	9		œ		11	10
AAR11861	AAR11860	AAR11714	AAR11613	AAR11703	AAR11615	AAR07900	AAR05865	AAP93187	AAP81231	AAP81233	AAP81251		AAR69582	AAR69581	AAR69580	AAR69579	AAR69584	AAR22311	AAR29809	AAR29808	AAR11723	AAR11011	AAR08151	AAR05286	AAP95660	AAP81068	AAP81066	AAP82303	AAP82190	AAP81236	AAP71245	AAP70528	0561	AAP91635
Improved Tumour Ne	d Tumour	crosis t				Antitumour polypep	Anti-tumour peptid	O	Sequence of modifi		Tumoricide polypep			Human TNF mutein.			Human TNF mutein.	TNF polypeptide mu		TNF analogue #1.	our Ne	TNF-like polypepti	Polypeptide with a	New polypeptide wi	Anti-tumour active	Sequence of new ph	Sequence of new ph	•	•	Modified tumour ne	TNF-derived polype	Synthetic tumour n	r G	Polypeptide derive

ALIGNMENTS

RESULT 1
AAY82194
ID AAY8

AAY82194 standard; peptide; 14

A

Tumour necrosis factor alpha; TNF-alpha; human; mouse; oedema;

Tumour necrosis factor alpha derived peptide #1

08-JUN-2000 AAY82194;

(first entry)

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14-AUG-1998;
18-SEP-1998;
21-OCT-1998;
Use of peptides derived from human or mouse tissue necrosis factor-alpha (TNF-alpha), and comprising 7-17 contiguous amino acids,
                       WPI; 2000-282855/24.
                                                                                                 10-AUG-1999;
                                                                                                                24-FEB-2000
                                                                                                                                WO200009149-A1
                                                                                                                                               Homo sapiens
                                                                                                                                                               proinflammatory; pulmonary oedema.
                                      Lucas R,
                                                      (INNO-)
                                                      INNOGENETICS NV
                                      De Baetselier
                                                                    98EP-0870180.
98EP-0870198.
98EP-0870222.
                                                                                                  99WO-EP05806
                                      Ρ,
                                      Pugin J,
                                      Bloc A,
                                        Fransen
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C-terminal region

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SULT 2
R05469
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           X= G-NH-CHM-CO, G-NH-CHM-CO-W, G-R-NH-CHM-CO or G-R-NH-CHM-CO-W;
Y= Z, NH-CHQ-COZ, V-NH-CHQ-COZ, NH-CHQ-CO-U-Z or V-NH-CHQ-CO-U-Z;
G= H or an amino protecting group;
Z= OH, NH2 or carboxy protecting group; or G and Z together are a covalent bond or the gp. CO(CH2)aNH; a=1-12;
R, U, V and W= peptide chains of 1-4 naturally occuring alpha aminoacids;
M and Q= H, isopropyl, CHMe. Et, phenyl, CH(OH), 3-indolyl- or
4-imidazoly-methyl or (CH2)bT; b=1-6;
T= OH, MeO, MeS, isopropyl
                                                                                                                                                                                                                                                                A= QRETPEGAEAKP, HRETPEWAEAKP, HRETPEEAEPMA, PROTPEGAELKP, PGLQEP
                                                                                                                                                                                                                                                                                                                          The residue S1 is attached Ac and to residue T17 NH2.

This peptide is an example of a highly generic sequence of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAR05469 standard; protein; 17 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention describes the use of peptides comprising a chain of 7-17 contiguous amino acids derived from the Ser100-Glu116 region of human tumour necrosis factor-alpha (TNF-alpha), or Ser99-Glu115 region of mouse TNF-alpha, for treating oedema. The peptides form pharmaceutical compositions for treating oedema, especially pulmonary oedema. The peptides are non-toxic, whilst retaining the oedema resorption-inducing capacity as TNF. The present sequence represents a specifically claimed TNF-alpha peptide from the present invention.
                                                                                                                                                                                                                                                                                                                                                           To residue S1 is attached
                                                                                                                                                                                                                                                                                                                                                                                                                Example 1; Page 7; 16pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                New tumour necrosis factor derived peptides- for treating or preventing neoplastic and autoimmune diseases, infection, inflammation and transplant rejection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Tumour necrosis factor; TNF; neoplastic disease; autoimmune disease; infection; inflammation; transplant rejection.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12-DEC-1988;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (BADI ) BASF AG.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         for preventing or treating oedema
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14; Conserv
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100.0%; Pr
phenyl (opt. 4-OH, substd.), HS, NH2, COOH,
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Pred. No. 7.2e-07;
; Mismatches 0;
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Best Local S
Matches 14
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Best Local Similarity 100.
Matches 14; Conservative
                                                                                                                       The TNF-alpha tip peptides given in AAR60232-42 were modified with N-terminal biorin-Gly-Gly moieties and were used to demonstrate that the tip region of mouse and human TNF-alpha contains the trypanosomal and lectin-like activities of the molecule and is involved in TNF-induced lethal shock.
                                                                                                                                                                                                                      New tumour necrosis factor -alpha muteins, antibodies and antisense peptide(s) - used in the treatment of diseases and conditions associated with the in vivo activities of TNF-A ecancer, sepsis, inflammation, etc
                                                                                                 Sequence
                                                                                                                                                                                               Disclosure; Page 61; 132pp; English.
                                                                                                                                                                                                                                                                                      WPI; 1994-279746/34.
                                                                                                                                                                                                                                                                                                              De Baetselier P,
                                                                                                                                                                                                                                                                                                                                                                03-FEB-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TNF-alpha; tumor necrosis factor-alpha; tip peptide; mutein; cancer; sepsis; inflammation; cytokine; metastasis; lectin; adhesion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CONH2, or NH2 C (NH) NH; or M ans Q together are (CH2)c-S-S-(CH2)d, (CH2)eCO NH-(CH2)f or (CH)2eNH CO(CH2)gNH CO(CH2) f; c and d=1-4; e and f=1-6; g=1-12. The peptide is a low mol. wt. deriv. of TNF. See also DE3841753-55, DE3841759, DE3841761-64, DE3841767-68.
                                                                                                                                                                                                                                                                                                                                      (INNO-) INNOGENETICS NV SA.
                                                                                                                                                                                                                                                                                                                                                                                        02-FEB-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                         WO9418325-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mutagenesis; trypanoside
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hTNF-alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAR60233 standard; peptide; 17 AA.
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                                                           Local Similarity
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QRETPEGAEAKPWY
                      ORETPEGAEAKPWY 14
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                                                 Conservative
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                                                                                                                                                                                                                                                                                                                                                                                        94WO-EP00286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note= "N-terminal biotin Gly-Gly"
                                                                                                                                                                                                                                                                                                            Fransen L,
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                                                          100.0%;
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                                                 0;
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                                                           Score 81; DB 15;
Pred. No. 8.9e-07;
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Pred. No. 8.9e-07;
Mismatches 0;
                                                                                                                                                                                                                                                                                                            Lucas R,
                                               Mismatches
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                                                                    Length 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                              Indels
                                              0;
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                                            Gaps
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XEXTXAXI
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AAY82196
ID AAY8
XX AAY8
AC AAY8
XX O8-J
XX Tumc
XX Tumc
XX Tumc
XX Tumc
XX Form
CKW From
CKW Proi
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                                                                                                                                                                                                                                                                                                                                                                               Query Match
  Tumour necrosis factor derived peptide.
                                                       23-OCT-1990
                                                                                                                                AAR05513 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention describes the use of peptides comprising a chain of 7-17 contiguous amino acids derived from the Ser100-Glul16 region of human tumour necrosis factor-alpha (TNF-alpha), or Ser99-Glul15 region of mouse TNF-alpha, for treating oedema. The peptides form pharmaceutical compositions for treating oedema, especially pulmonary oedema. The peptides are non-toxic, whilst retaining the oedema a specifically claimed TNF-alpha circularised peptide from the presents of the present of the 
                                                                                                   AAR05513;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-AUG-1998;
18-SEP-1998;
21-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 8; Page 16; 26pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Use of peptides derived from human or mouse tissue necrosis factor-alpha (TNF-alpha), and comprising 7-17 contiguous amino acids,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             for preventing or treating oedema
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2000-282855/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Lucas R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (INNO-) INNOGENETICS NV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200009149-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tumour necrosis r proinflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-FEB-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tumour necrosis factor alpha derived circularised peptide #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY82196 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY82196;
                                                                                                                                                                                                                                                                                                                                                         Loca L
                                                                                                                                                                                                                                                     ω
                                                                                                                                                                                                                                                                       1 QRETPEGAEAKPWY
                                                                                                                                                                                                                                              QRETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                                  14;
                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       necrosis factor alpha; TNF-alpha; human; mouse; oedema;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  De Baetselier
                                                                                                                                                                                                                                                                                                                                                                                                                       17
                                                                                                                                                                                                                                                                                                                                Conservative
                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                  ₽,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98EP-0870180.
98EP-0870198.
98EP-0870222.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-EP05806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
1..17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            pulmonary oedema; cyclic.
                                                                                                                                                                                                                                              16
                                                                                                                                                                                                                                                                                      14
                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ρ,
                                                                                                                                    25
                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pugin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17
                                                                                                                                                                                                                                                                                                                                                Score 81;
Pred. No.
                                                                                                                                    Ą
                                                                                                                                                                                                                                                                                                                          Mismatches
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                                                                                                                                                                                                                                                                                                                                           DB 21;
8.9e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fransen
                                                                                                                                                                                                                                                                                                                                                             Length 17;
                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ۲.
                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                   Gaps
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XX AC XXX DT XXX
                                                                                                                  RESULT 6
AAR72456
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                                                                                                                                                                                                                                                                       PN XX
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                                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                               G= H or an amino protecting group;

Z= OH, NH2 or carboxy protecting group; or G and Z together are a covalent bond or the gp. CO(CH2)aNH; a=1-12;

R, U, V and W= peptide chains of 1-4 naturally occuring alpha aminoacids; 4-inidazoly-methyl or (CH2)bT; b=1-6;

T= OH, MeO, MeS, isopropyl, phenyl (opt. 4-OH, substd.), HS, NH2, COOH, MeO, MeS, isopropyl, phenyl (opt. 4-OH, substd.), HS, NH2, COOH, CONH2, or NH2 C (NH) NH; or M ans Q together are (CH2)c-S-S-(CH2)d, (CH2)eCO NH-(CH2)f or (CH)beNH CO(CH2)gNH CO(CH2) f; c and d=1-4; e and f=1-6; g=1-12.

The peptide is a low mol. wt. deriv. of TNF.

See also DE3841753-55, DE3841759, DE3841761-64, DE3841767-68.
                                               19-DEC-1995
                                                                          AAR72456;
                                                                                             AAR72456 standard; protein; 140 AA
                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                   PGPQGP or PGLQGP;

X* G-NH-CHM-CO, G-NH-CHM-CO-W, G

X* Z, NH-CHQ-COZ, V-NH-CHQ-COZ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A= ORETPEGAEAKP; HRETPEWAEAKP, HRETPEEAEPMA, PRDTPEGAELKP, PGLQEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Residues Orn4 and Asp22 together form a covalent bond. This peptide is an example of a highly generic sequence formula x-A-Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 37; Page 12; 16pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New tumour necrosis factor derived peptides- for treating or preventing neoplastic and autoimmune diseases, infection, inflammation and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   transplant rejection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1990-186576/25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bohm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Tumour necrosis factor; TNF; neoplastic disease; autoimmune disease; infection; inflammation; transplant rejection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (BADI ) BASF AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-DEC-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-DEC-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DE3841759-A
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                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Misc-difference
                                                                                                                                                                   œ
                                                                                                                                                                                       1 QRETPEGAEAKPWY
                                                                                                                                                                 QRETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'n,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Daum L,
                                                                                                                                                                                                                                                                       25
                                                                                                                                                                                                                 Conservative
                                            (first entry)
                                                                                                                                                                                                                                                                       AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            G-NH-CHM-CO-W, G-R-NH-CHM-CO or G-R-NH-CHM-CO-W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     88DE-3841759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              88DE-3841759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="Ornithine"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         label=OTHER
                                                                                                                                                                21
                                                                                                                                                                                       14
                                                                                                                                                                                                                             100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Haupt A,
                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                             Score 81;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Schmied
                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                 NH-CHQ-CO-U-Z or V-NH-CHQ-CO-U-Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                               _
                                                                                                                                                                                                                                         DB
                                                                                                                                                                                                                          .3e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Walker
                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ,
                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zechel
                                                                                                                                                                                                                                       25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JC;
                                                                                                                                                                                                             0;
                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                           0
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Tumour necrosis

Tumour necrosis factor-alpha 4th exon fragment.

factor; fusion protein; metastasis;

inhibition

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fatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   est Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          uery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The amino acid sequence of a part of the 4th exon from the tumour necrosis factor (TNF)-alpha. The protein has the peptide AAR72454 attached to the N-terminal amino acid. The fusion protein can be used in pharmaceutical compositions for inhibiting metastasis.
  Claim 2(1); Page 547; 17pp; Japanese.
                                                                                                      WPI; 1988-080331/12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAP82043 standard; protein;
                                             New biologically active polypeptide - useful as anticancer agent
                                                                                                                                                      (TEIJ ) TEIJIN KK.
                                                                                                                                                                                                       25-JUL-1986;
                                                                                                                                                                                                                                                    25-JUL-1986;
                                                                                                                                                                                                                                                                                                     12-FEB-1988.
                                                                                                                                                                                                                                                                                                                                                     JP63032486-A.
                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Anticancer drug; lymphokine; antitumour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence of new tumour necrosis factor (TNF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-DEC-1990 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAP82043;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 5; 14pp; Chinese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pharmaceutical and veterinary composition for inhibiting metastasis - can be made into tablet form
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1995-168947/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (MIZU/) MIZUNO D.
(SONA/) SONAMOTO I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-OCT-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TW239078-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 QRETPEGAEAKPWY 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QRETPEGAEAKPWY 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           140 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; ilarity 100.0%; Conservative
                                                                                                                                                                                                       86JP-0173822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              93JP-0020556.
                                                                                                                                                                                                                                                    86JP-0173822.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93TW-0108498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note= "This residue has the peptide AAR72454
    attached at the N-terminus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   145 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 81; DB 16;
Pred. No. 8.4e-06;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 140;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
RESULT 9
AAB67245
ID AAB6
XX
AC AAB6
                                                                                                                                                                                                                                                                                                                                                                       AAP81853
ID AAP8
XX AAR8
XX AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         XSSSSXX
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                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 14; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 14; Conserv
  AAB67245;
                                                AAB67245 standard; protein; 147 AA
                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAP81853 standard; protein; 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1988-010365/02.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21-MAY-1986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        27-NOV-1987.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JP62272991-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Antitumour; anticancer; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-DEC-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAP81853;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (TEIJ ) TEIJIN KK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21-MAY-1986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                          92 QRETPEGAEAKPWY 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       91 QRETPEGAEAKPWY 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 QRETPEGAEAKPWY 14
                                                                                                                                                                                                                      ORETPEGAEAKPWY 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         145 AA;
                                                                                                                                                                                                                                                                                                                                                                          147 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     modified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    86JP-0114754.
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                                                                                                                                                                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
100.0%;
                                                                                                                                                                                                                                                                         0,
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DNA sequence encoding hTNF was synthesised chemically and inserted into vector plasmid. Recombinant plasmid was cut with restriction enzyme and DNA fragment coding for new bioactive polypeptide was obtd. The new bioactive polypeptide has ten N-terminal AAs deleted. It has antitumour activity greater than hTNF and can be produced by culturing bacteria transformed with a plasmid contg. DNA encoding the polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New biologically active polypeptide has cytotoxic activity specifically for tumour cells and, therefore, is expected to be used as an anticancer drug. It is derived from human TuF by deleting 11 N-terminal AAs. (See also J63188396, AAN81624 and AAP81236).
                                                                                                                                                                                                                                                                                                                                                                                       Claim 2(1); Page 761; 20pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                      New bioactive polypeptide -
has antitumour activity, and is obtd. by culturing bacteria
transformed with plasmid contg. DNA sequence of the polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              human tumour necrosis
Score 81; DB 9;
Pred. No. 8.9e-06;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 81; DB 9;
Pred. No. 8.7e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           factor (hTNF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                     Length 147;
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Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
0
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Gaps
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0;
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RESULT 10
AAY71982
     ID XXX ACC CAR ACC CAR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention relates to a formulation comprising Apo-2 ligand and divalent metal ions. Apo-2 ligand and the formulation are useful for treating cancers and viral infections. Addition of divalent metal ions for making Apo-2 ligand and formulations containing Apo-2 ligand results in increased yield and stability
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI;
                                                                                                                                                                Tumour necrosis factor and ApoL-related Leucocyte expressed Ligand 1; therapy; autoimmune disorder; rheumatoid arthritis; multiple sclerosis; systemic lupus erythematosus; SLE; insulin dependent diabetes mellitus; thrombocytopenia purpura; acute rheumatic fever; myasthenia gravis; haemolytic anaemia; Grave's disease; Goodpasture's syndrome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Use of divalent metal ions for making Apo-2 ligand and in formulations containing Apo-2 ligand for increasing yield and stability of ligand trimers, useful for therapeutic applications -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ashkenazi AJ,
O'Connell M,
                                                        Key
                                                                                                                                            haemolytic anaemia; Grave's disease; Goodpasture's syndrome; post-streptococcal glomerulonephritis; polyarteritis nodosa; BCMA;
                                                                                                                                                                                                                                                                                                   C-terminal region of human Tumour Necrosis Factor (TNF).
                                                                                                                                                                                                                                                                                                                                                                                  AAY71982;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Fig 3; 60pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; Apo2 ligand: divalent metal ions; viral infection; cancer
 Region
                                     Region
                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                              28-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                 AAY71982 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28-JUN-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-APR-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QRETPEGAEAKPWY 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001-123012/13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tumour necrosis
                                                                                                                                                                                                                                                                Tumour Necrosis Factor; TNF; immunosuppressant; TALL-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ligand trimers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    147 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pai R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hymowitz S, Kelley RF, Koumenis Pai R, Shahrokh Z, Simmons L;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-0141342
 2..8
/label= Beta_strand
16..18
                                                      Location/Qualifiers
                                                                                                                             factor; pemphigus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   factor
                                                                                                                                                                                                                                                                                                                                                                                                                   147
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 81;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                     A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                               vulgaris; B-lymphocyte proliferation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; DB 22;
. 8.9e-06;
ches 0;
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                                                                                          QΥ
RESULT 11
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Matches

Conservative

0;

Mismatches

0;

Gaps

0

92

1 QRETPEGAEAKPWY

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Query Match
Best Local
                                                                                                                                                                                                                                                                                 mediated immune responses. TALL-1 protein is useful for identifying compounds that regulate B lymphocyte proliferation. It is also useful for treating B lymphocyte associated autoimmune disorders like rheumatoid arthritis, systemic lupus erythematosus (SLE), insulin dependent diabetes mellitus, multiple sclerosis, myasthenia gravis, Grave's disease, autoimmune haemolytic anaemia, autoimmune thrombocytopenia purpura, autoimmune haemolytic anaemia, autoimmune thrombocytopenia purpura
                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention relates to Tumour necrosis factor (TNF) and ApoL-related Leucocyte expressed Ligand 1 (TALL-1) nucleic acid molecules, proteins (including homologues), and their antibodies. Th invention in particular relates to methods for regulating the interaction between TALL-1 and TALL-1 receptors (BCMA referred as B
                                                                                                                                  useful in diagnostic assays.
The present sequence is a C-terminal region of human Tumour necrosis factor (TMF) which has 20-25% sequence identity with C-terminal region human TALL-1 protein extracellular domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       lymphocyte autoimmune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Region
                                                                                      Sequence
                                                                                                                                                                                                                    post-streptococcal glomerulonephritis, or polyarteritis nodosa.
The TALL-1 protein and its corresponding nucleic acid sequence
                                                                                                                                                                                                                                                             Goodpasture's syndrome, pemphigus vulgaris, acute rheumatic
                                                                                                                                                                                                                                                                                                                                                                                                 maturation factor) to regulate monocyte, macrophage and B lymphocyte mediated immune responses. TALL-1 protein is useful for identifying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-016094/02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            06-MAY-1999;
01-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-MAY-2000; 2000WO-US12266
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 1;
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                    Local
                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fig 1b; 112pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99US-0132892.
2000US-0201012.
                                                                                      AA;
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45..56
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37..40
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31..34
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26..28
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                      100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RES
                      Score 81;
Pred. No.
; DB 22;
. 8.9e-06;
ches 0;
                                         Length 147;
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WPI; 1990-196692/26
                                                          09-NOV-1988;
                                                                                        09-NOV-1988;
                                                                                                                     17-MAY-1990
                              (TEIJ ) TEIJIN KK.
                                                                                                                                                  JP02128696-A
                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                           AAR05612 standard; protein; 149 AA.
                                                                                                                                                                                                             Antitumour;
                                                                                                                                                                                                                                       Antitumour peptide
                                                                                                                                                                                                                                                                                                     AAR05612;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The recombinant polypeptide expressed by E.coli transformed with pTNF482, has antitumour activity with greater specific activity and stability than natural h-TNF, and which causes less side effects.
                                                                                                                                                                                                                                                                        29-OCT-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1; page 1; 18pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New phisiologically active polypeptide - with antitumour activity.
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N-PSDB; AAN94432.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Tumour necrosis factor; antitumour activity; pTNF482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-JAN-1989.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Polypeptide derived
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAP91635 standard; protein; 149 AA
                                                                                                                                                                                                                                                                                                                                                                                                           94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity 100 es 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                         1 QRETPEGAEAKPWY 14
                                                                                                                                                                                                                                                                                                                                                                                                           QRETPEGAEAKPWY 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              149 AA;
                                                                                                                                                                                                          cancer; tumour necrosis
                                                                                                                                                                                                                                                                      (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                          88JP-0281364
                                                                                      88JP-0281364.
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                                                                                                                                                                                                                                                                     entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             from human tumour necrosis factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 81; DB
Pred. No. 9e-
0; Mismatches
                                                                                                                                                                                                          factor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 10;
9e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 149;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
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New physiologically active polypeptide

RESULT 14 AAP71245 N-PSDB; AAQ05038.

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                                             Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAP70528
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 14; Conserv
                                                                                                                                     The mutant of tumour necrosis factor (TNF) is constructed by modifying the sequence of human TNF and deleting 7 N-terminal amino acids. The mutant has activity 2.8 times that of human TNF. It is expressed using expression vector pTNF 416 in E.coli. The cells are then cultured to give the mutant in an amt. of 15.5% of total proteins. The antitumour activity of this protein was measured using mouse L-929 fibroblast cells. 100 microlitres of E.coli lysate contg. 0.0006 units had specific activity of the mutant of 0.000088 units/mg.
                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                               New bioactive polypeptide - having antitumour activity and higher activity than human tumour necrosis factor.
                                                                                                                                                                                                                                                                                     Claim 1; page 623; 18pp; japanese.
                                                                                                                                                                                                                                                                                                                                                               WPI; 1987-345004/49.
N-PSDB; AAN70852.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic tumour necrosis
                                                                                                                                                                                                                                                                                                                                                                                                       (TEIJ ) TEIJIN KK.
                                                                                                                                                                                                                                                                                                                                                                                                                                     21-APR-1986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-APR-1986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29-OCT-1987.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JP62248498-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tumour necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-JAN-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAP70528;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAP70528 standard; protein; 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA is synthesised from 17 oligonucleotides TNF-1 to TNF-17 The gene product may be truncated by 12 N-terminal AAs, and residue Leu-157 may be replaced by Phe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; ; 18pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and has low side effect.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          contains specific amino acid sequence,
95 QRETPEGAEAKPWY
                1 QRETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95 QRETPEGAEAKPWY 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 ORETPEGAEAKPWY 14
                                                                                                                 150 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 149 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                   86JP-0090087
                                                                                                                                                                                                                                                                                                                                                                                                                                                              86JP-0090087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            factor; mutant; antitumour agent; vector pTNF 416;
  108
                               14
                                                                    100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        factor mutant
                                                         0;
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0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                     Score 81;
Pred. No.
                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                  9.1e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          shows antitumour effect
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9e-06;
                                                                                 DB 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 11;
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                                                                               Length 150;
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RESULT 15
AAP81236
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    PR XX 
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Best Local Similarity 100.0%;
Matches 14; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-JUN-1985;
26-FEB-1985;
23-APR-1985;
26-FEB-1986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The polypeptide was obtd. by cleaving DNA encoding mature TNF. The resulting fragment was then ligated to a synthetic DNA adapter and inserted into an expression vector for prodn. of the polypeptide which has tumoricidal activity. The N-terminal may have up to three residues deleted resulting in N-terminals of: Met-Ser-Asp-Lys,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tumour necrosis factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TNF-derived polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tumoricidal polypeptide(s) - are prepd. by cleaving specified DNA with pertinent restriction enzyme(s) and bonding with conventional synthetic DNA adaptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1987-153959/22.
N-PSDB; AAN71245.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26-FEB-1986;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Met-Asp-Lys, or Met-Lys.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (DAIN ) DAINIPPON PHARM KK
                                                                                                                                                                                                                                                                                                                  Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                Tumour necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAP81236 standard; protein; 150 AA.
30-JAN-1987;
                                                                         30-JAN-1987;
                                                                                                                                                           03-AUG-1988.
                                                                                                                                                                                                                                         JP63188396-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Modified tumour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-OCT-1990
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85EP-0102093.
85JP-0087297.
86JP-0040733.
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87JP-0018566
                                                                         87JP-0018566.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  necrosis factor.
                                                                                                                                                                                                                                                                                                                                                                                                factor; cytotoxic agent; antitumour drug; cancer.
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Pred. No. 9.1e-06;
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Search completed: April Job time: 27.9677 secs
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Best Local S
Matches 14
                                                                                                                                                      A DNA sequence produced from synthetic oligonucleotides can be used, in an expression vector, to produce the recombinant polypeptide which has a broad action spectrum and causes few side effects.
                                                                                                                                                                                                                                                            WPI; 1988-260396/37.
N-PSDB; AAN81624.
                                                                                                                                   Sequence
                                                                                                                                                                                                   Claim 1; Page 1; 20pp; Japanese.
                                                                                                                                                                                                                                                                                          (TEIJ ) TEIJIN KK.
                                                                                                                                                                                                                          Mew biologically active polypeptide - is modified tumour necrosis factor with cytotoxic activity to cancer cells.
                                             95
                                           l Similarity 100
14; Conservative
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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Perfect score:
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        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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Match
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81
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Query Match 100.0%; Score 81; DB 1; Best Local Similarity 100.0%; Pred. No. 6e-06;	A; Introns: 62/3; 78/1; 93/1 C; Superfamily: tumor necrosis factor C; Superfamily: tumor necrosis factor C; Superfamily: tumor necrosis; glycoprotein; lipopr F;1-77/Domain: propeptide #status predicted <pro> F;78-332/Product: tumor necrosis factor alpha #status F;19,20/Binding site: myristate (Lys) (covalent) #sta F;81/Binding site: carbohydrate (Ser) (covalent) #sta F;144-176/Disulfide bonds: #status predicted</pro>	A;Status: preliminary; translated from GB/EMBL/DDBJ A;Molecule type: mRNA A;Residues: 44-232 <pau> A;Cross-references: GB:M29079; NID:g164694; PIDN:AAA31128</pau>	A;Cross references: EMBL:XS57321; NID:g2137; PIDN:CAA4(R;Pauli, U.; Beutler, B.; Peterhans, E. Gene 81, 185-191, 1989 A;Title: Porcine tumor necrosis factor alpha: Cloning A;Reference number: 146659; MUID:90034181; PMID:24784; A;Accession: 146659	a DN:	R; Wuhnert, P.; Wuethrich, C.; Peterhans, E.; Pauli, Gene 102, 171-178, 1991 A; Title: The porcine tumor necrosis factor-encoding A; Reference number: S17289; MUID:91340150; PMID:187. A; Accession: S17290 A; Molecule type: DNA A; Residues: 1-323 < KUH>	A:Title: Gene sequence of porcine tumor necrosis factor A;Reference number: \$12606; MUID:91016861; PMID:2216741 A;Recession: \$12606 A;MOID:91016861; PMID:2216741 A;Accession: \$12606 A;MOID:91016861; PMID:2216741 A;Molecule type: DNA A;Residues: 1-232 CDRE> A;Cross-references: EMBL:X54001; NID:g2135; PIDN:CAA379	RESULT 1 \$12606 S12606 tumor necrosis factor alpha precursor - pig C. Species: Sus scrofa domestica (domestic pig) C. Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #t C. Accession: \$12606; \$17290; \$18965; 14659 R.Drews, R.T.; Coffee, B.W.; Prestwood, A.K.; McGraw,	ALIGNMENTS	30 41 50.6 712 2 A96023 31 41 50.6 730 2 AI3351 32 41 50.6 774 1 QRECFA 33 40 49.4 184 2 H72414 40 49.4 289 1 A64379 35 40 49.4 280 1 A64379 36 40 49.4 282 2 F86486 37 40 49.4 282 2 F96635 38 40 49.4 455 2 S39663 39 40 49.4 455 2 G75060 40 49.4 9.4 647 2 G75060 40 49.4 9.4 9.75 2 H8713 41 40 49.4 1236 1 VHWVWE 43 40 49.4 1236 1 VHWVEE 44 40 49.4 1239 1 VHWVEE 44 40 49.4 1239 1 VHWVEE 45 40 49.4 1241 2 S26373
Length 232;	lipoprotein; lymphokine; macrophage; m O> status predicted <mat>) #status predicted) #status predicted</mat>	A31128.1; PID:g164695	PIDN:CAA40591.1; PID:g2138 : Cloning with the polymerase chain react MID:2478420	CAA38639.1; PID:92134 residue 202 as Gly M.P. cDNA encoding porcine tumor necrosis	U. genes: sequence a 1444	.6741 .6741 .637949.1; PID:g2136	#text_change 04-Feb-2000		probable methylmal methylmalonyl-CoA iron(III) dicitrat hypothetical prote bis(5'-nucleosyl)- bis(5'-nucleosyl)- bis(5'-nucleosyl)- bis(5'-nucleosyl)- aminopeptidase hom hydrogenase-4 comp methylmalonyl-CoA phage host specifi structural polypro structural polypro structural polypro genome polyprotein

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Pross-references: EMBL:215026; NID:g37211; PIDN:CAA78745.1; PID:g37212
Note: the nucleotide sequence was submitted to the EMBL Data Library, August 1992
Pennica, D.; Nedwin, G.E.; Hayflick, J.S.; Seeburg, P.H.; Derynck, R.; Palladino, M.A.
ture 312, 724-729, 1984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Iris, F.J.M.; Bougueleret, L.; Prieur, S.; Caterina, D.; Eure Genet. 3, 137-145, 1993
Fitle: Dense Alu clustering and a potential new member of Reference number: S36152; MUID:93272029; PMID:8499947 Accession: S36153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Date: 28-Aug-1985 #sequence_revision 28-Aug-1985 #text_change 08-Dec-2000 *Cocession: A93585; S36153; A93351; A44189; B61478; I53311; S62610; I54522; A01646; B23 *tedwin, G.E.; Maylor, S.L.; Sakaguchi, A.Y.; Smith, D.; Jarrett-Nedwin, J.; Pennica, E. :leic Acids Res. 13, 6361-6373, 1985 **Itle: Human lymphotoxin and tumor necrosis factor genes: structure, homology and chro Reference number: A93585; MUID:86016093; PMID:2995927***
**Cocession: A93585****
                                                                                                                                                                         Experimental source: U-937 cells [akakura-Yamamoto, R.; Yamamoto, S. J. 1966]

[akakura-Yamamoto, R.; Yamamoto, S. J. Biochem. 235, 431-437, 1996]
                                                                                                                                                                                                                                                                                                                                                                              dolecule type: DNA
Residues: 1-233 <M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    volecule type: protein
Residues: 83-102;109-119;121-128,'X',130-131;142-144,'X',146,'XXX',150-152;159-174;180
Residues: 83-102;109-119;121-128,'X',130-131;142-144,'X',146,'XXX',150-152;159-174;180
Marmenout, A.; Fransen, L.; Tavernier, J.; Van Der Heyden, J.; Tizard, R.; Kawashima,
c. J. Biochem. 152, 515-522, 1985
c. J. Biochem. 152, 515-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ritle: Simultaneous production of natural human tumor
Reference number: A61478; MUID:88301617; PMID:2841543
Accession: B61478
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pross-references: GB:X02910; GB:X02159; NID:g37209; PIDN:CAA26669.1; PID:g37210 Note: this protein was isolated from the monocyte-like cell line HL-60 from a promyelowang, A.M.; Creasey, A.A.; Ladner, M.B.; Lin, L.S.; Strickler, J.; Van Arsdell, J.N.; Lence 228, 149-154, 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Molecule type: mRNA
Residues: 1-233 <PEN>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             dolecule type: DNA
Residues: 1-233 <NED>
                                                                                              litle: O-Glycosylated species of natural human tumor-necrosis
Reference number: S62610; MUID:96202967; PMID:8631363
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Status: translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pitle: Human tumour necrosis factor: precursor structure, expression and homology to 
Reference number: A93351; MUID:85086244; PMID:6392892
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    folecule
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                                                                                                                                                                                                                                                                                                                      ross-references: GB:M26331; NID:g339763; PIDN:AAA36758.1;
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A; Residues: 1-8 < DAL>
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                                               Local Similarity
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Conservative
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R.Stevenson, F.T.; Bursten, S.L.; Locksley, R.M.; Lovett, D.H.
J. Exp. Med. 176, 1053-1062, 1992
A;Title: Myristyl acylation of the tumor necrosis factor alpha precursor on specific A;Reference number: A59163; MUID:93018820; PMID:1402651
A;Contents: annotation; identification of myristylated lysines
A;Contents: Annotation; identification of myristylated lysines
R;Aggarwal, B.B.; Kohr, W.J.; Hass, P.E.; Moffat, B.; Spencer, S.A.; Henzel, W.J.; Br
J. Biol. Chem. 260, 2345-2354, 1985
J. Biol. Chem. 260, 2345-2354, 1985
A;Title: Human tumor necrosis factor. Production, purification, and characterization.
A;Title: Human tumor necrosis factor. Production, purification, and characterization.
A;Contents: annotation; disulfide bond
A;Contents: annotation; disulfide bond
C;Comment: Secreted from mitogen-activated macrophages within 4-24 hours after induct of the property of t
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C;Reywords: cytokine; cytotoxin; glycoprotein; homotrimer; lipoprotein;
C;Reywords: cytokine; cytotoxin; glycoprotein; homotrimer; lipoprotein;
C;Reywords: cytokine; cytotoxin; glycoprotein; homotrimer; lipoprotein;
C;Reywords: cytokine; predicted <PRO>
F;17-233/Product: tumor necrosis factor *status experimental <MAT>
F;19,20/Binding site: myristate (Lys) (covalent) *status experimental
F;81/Binding site: carbohydrate (Ser) (covalent) (partial) *status exper
F;145-177/Disulfide bonds: *status experimental
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R;Sanjanwala, M.; Edwards, A.
R;Sanjanwala, M.; Edwards, A.
submitted to the EMBL Data Library, September 1991
A;Description: Baboon Tumor Necrosis Factor Derived from Sequences of Genomic DNA.
A;Reference number: $22052
A;Accession: $22052
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                                                                                                                                                   C:Keywords: glycoprotein; lipoprotein; myristylation; transmembrane F;19,20/Binding site: myristate (Lys) (covalent) #status predicted F;81/Binding site: carbohydrate (Ser) (covalent) #status predicted F;145-177/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Species: Papio sp. (baboon)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999
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A;Map position: 6p21.3-6p21.3
A;Introns: 62/3; 78/1; 94/1
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Immunogenetics 39, 150-154, 1994
                                                                                                                                                                                                                                                                                                                                                                             Superfamily: tumor necrosis factor
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100.0%;
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Score 81; DB 1;
Pred. No. 6e-06;
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                                                      DB 1;
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                                           Length 233;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PID:g38160
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0;

Mismatches

Indels

0,

Gaps

14

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R; Mertens, B.; Gaidulis, L. submitted to the EMBL Data Library, A; Description: Cloning and sequence A; Reference number: $52715
A; Accession: $52715
      tumor necrosis factor alpha precursor - bovine c;Species: Bos primigenius taurus (cattle) C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 04-Feb-2000 C;Accession: I46047; S24642 R;Cludts, I.; Cleuter, Y.; Kettmann, R.; Burny, A.; Drooqmans, L.
                                                                                                                                                                                                      뮹
                                                                                                                                                                                                                                          δã
                                                                                                                      S24642
                                                                                                                                                                                                                                                                                                                                                                                             A;Cross-references: EMBL:Z48808; NID:g755701; PIDN:CAA88743.1; PID:g755702 C;Superfamily: tumor necrosis factor C;Keywords: glycoprotein C;Keywords: glycoprotein F;33/Binding site: carbohydrate (Ser) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: mRNA
A; Residues: 1-185 < MER>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tumor necrosis factor alpha precursor - bovine (fragment)
C;Species: Bos primigenius taurus (cattle)
C;Date: 19-May-1995 #sequence_revision 21-Jul-1995 #text_change 04-Feb-2000
C;Accession: S52715
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A; Residues: 1-233 <MCG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tumor necrosis factor alpha precursor - cat
c;Species: Felis silvestris catus (domestic cat)
C;Date: 21-Nov-1993 #sequence_revision 10-Nov-19
C;Accession: S11688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Introns: 62/3; 78/1; 94/1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Reference number: S11688; MUID:91016860; A; Accession: S11688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Title: Gene sequence of feline tumor necrosis factor alpha A;Reference number: S11688; MUID:91016860; PMID:2216740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R;MCGraw, R.A.; Coffee, B.W.; Otto, C.M.; Drews, R.T.; Rawlings, Nucleic Acids Res. 18, 5563, 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: EMBL:X54000; NID:g1084; PIDN:CAA37948.1; PID:g295777
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                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                         97-129/Disulfide bonds:
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                                                                                                                                                                                                                                              2 RETPEGAEAKPWY
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bonds: #status predicted
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92.3%;
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    Kettmann, R.;
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                                                                                                                                                                                                                                                                                                         Score 68; I
Pred. No. 0.
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Pred. No.
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analysis of
                                                                                                                                                                                                                                                                                    Mismatches
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  Burny,
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6e-06;
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  A.; Droogmans,
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Matches
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F;20/Binding site: myristate (Lys) (covalent) #status F;82/Binding site: carbohydrate (Ser) (covalent) #stat F;96/Binding site: carbohydrate (Asn) (covalent) #stat
                                                                                                       C;Superfamily: tumor necrosis factor C;Superfamily: tumor necrosis factor C;Keywords: alternative splicing; cytokine; cytotoxin; glycoprof F;1-77/Domain: propeptide #status predicted <PRO>F;1-34/Product: tumor necrosis factor alpha #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A:Experimental source: alveolar macrophage R:Nash, A.D.: Barcham, G.J.: Brandon, M.R.: Immunol. Cell Biol. 69, 273-283, 1991
A:Title: Molecular cloning, expression and call Reference number: $48118; MUID:92155784; Fig. 1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Introns: 62/3; 78/1; 94/1
C;Superfamily: tumor necrosis factor
C;Superfamily: tumor necrosis factor
C;Keywords: glycoprotein; lipoprotein; myristylation; transmembrane
F;20/Binding site: myristate (Lys) (covalent) #status predicted
F;81/Binding site: carbohydrate (Ser) (covalent) #status predicted
F;146-178/Disulfide bonds: #status predicted
                                                                                                                                                                                                            A; Cross-references: EMBL: X55966; NID: g1403; PIDN: CAA39437.1; PID: g1404
A; Note: comparison with the introns of homologous sequences suggest th
                                                                                                                                                                                                                                                                    A; Molecule type: mRNA
A; Residues: 1-62,64-234 <YOU>
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Nucleic Acids Res. 18, 6723, 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Species: Ovis orientalis aries, Ovis ammon aries C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 C;Accession: JH0529; S48118; S13114; S20661
                                                                                                                                                                                                                                                                                                                               A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                        A; Accession: S13114
                                                                                                                                                                                                                                                                                                                                                                                 A; Title: Primary structure of ovine tumor necrosis factor A; Reference number: S13114; MUID:91067496; PMID:2251151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: mRNA
A; Residues: 1-234 < NAS>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Status: preliminary
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A; Residues: 1-234 <GRE>
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A; Title: Sequence of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R; Green, I.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N; Alternate names: cachectin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cytokine 5, 336-341, 1993 A;Title: Cloning and characterization of the tandemly arranged bovine lymphotoxin A:Reference number: I46046; MUID:94083525; PMID:8260599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           tumor necrosis factor alpha precursor - sheep
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A; Residues: 1-233 <CL2>
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Matches
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les 12; Conserv
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92.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   expression and characterization of ovine TNF-alpha MUID:92155784; PMID:1786996
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Pred. No. 0.00088
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                                                                                                                                                          cytotoxin; glycoprotein; lipoprotein;
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                                                     #status
                                                                                                                                                                                                               sequences suggest that this is
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l Similarity 12; Conserv

Conservative

0,

Mismatches

81.5%; 92.3%;

Score 66; D

DB 1; 0.0019;

Length 234;

Indels

0,

Gaps

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MOCGEDIE type: mRNA
MOLGCULE type: mRNA
Residues: 1-235 <PEN>
Cross-references: GB:M11731; NID:9202084; PIDN:AAA40458.1;
Cross-references: GB:M11731; Narmenout, A.; Tavernier, J.; van
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cseh, K.; Beutler, B.
Biol. Chem. 264, 16256-16260, 1989
Biol. Chem. 264, 16256-16260, 1989
Title: Alternative cleavage of the cachectin/tumor necrosis factor propeptide results
Reference number: A34251; MUID:89380231; PMID:2777790
Accession: A34251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Molecule type: DNA Molecule type
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fransen, L.; Muller, R.; Marmenout, A.; Tcleic Acids Res. 13, 4417-4429, 1985
Title: Molecular cloning of mouse tumour
Reference number: A23127; MUID:85242112;
Accession: A23127
                                                                                                                                                                                                                    Residues: :
                                                                                                                                                                                                                                                                                              Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                    Caput, D.; Beutler, B.; Hartog, K.; Thayer, R.; Brown-Shimer, oc. Natl. Acad. Sci. U.S.A. 83, 1670-1674, 1986
Title: Identification of a common nucleotide sequence in the Reference number: I59058; MUID:86149365; PMID:2419912
Accession: I59058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Molecule type: protein Residues: 70-87 <CSE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cross-references: GB:x02611; NID:g54844; PIDN:CAA26457.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Molecule type: mRNA
Residues: 1-235 <FRA>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Molecule type: DNA
Residues: 1-235 <SHA>
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oorg. Khim. 13, 701-705, 1987
Title: Molecular cloning of the genes coding for tumor
Reference number: S03791; MUID:87298639; PMID:3040015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Title: Cloning and expression in Escherichia coli of the gene for mouse tumor Reference number: A22908; MUID:88224564; PMID:2836146 Accession: A22908
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                                                                                                                                                                                                                                                       Molecule type: mRNA
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Residues: 1-235 <SHI>
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ross-references: GB:M13049; NID:g202082; PIDN:AAA40457.1; PID:g202083; herry, B.; Jue, D.M.; Zentella, A.; Ceramí, A.; chem. Biophys. Res. Commun. 173, 1072-1078, 1990; ttle: Characterization of high molecular weight glycosylated forms of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180 RETLEGAEAKPWY 192
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der Heyden,
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    of
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A;Introns: 62/5; 81/1; 97/1

A;Introns: 62/5; 81/1; 97/1

C;Superfamily: tumor necrosis factor
C;Keywords: cytokine; cytotoxin; glycoprotein; lipoprotein; lymphokine; macrophage;
F;80-235/Product: tumor necrosis factor *status predicted <MAT>
F;9,20/Binding site: myristate (Lys) (covalent) *status predicted
F;84/Binding site: carbohydrate (Ser) (covalent) *status predicted
F;84/Binding site: carbohydrate (Asn) (covalent) *status predicted
F;148-179/Disulfide bonds: *status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R;Estler, H.C.; Grewe, M.; Gaussling, R.; Pavlovic, M.; Blol. Chem. Hoppe-Seyler 373, 271-281, 1992
A;Title: Rat tumor necrosis factor-alpha: Transcription A; Reference number: S21674; MUID:92329007; PMID:1627266 A; Accession: S21674
                                                                                                                                                                                                                                                                                                                                                                                                                    A:Molecule type: mRNA
A:Residues: 1-38,'P',40-162,'T',164-201,'S',203-235 <EST>
A:Residues: 1-38,'P',40-162,'T',164-201,'S',203-235 <EST>
A:Cross-references: GB:X66539; GB:X40199; NID:g395369; PIDN:CAA47146.1; PID:g395370
C:Comment: Tumor necrosis factor is secreted by macrophages in response to endotoxin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: GB:L00981; NID:g205253; PIDN:AAA16275.1; PID:g205254 R:Estler, H.C.; Grewe, M.; Gaussling, R.; Pavlovic, M.; Decker, K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: DNA
A; Residues: 1-235 < KWO>
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A;Title: Cloning and sequenc
A;Reference number: JN0868;
A;Accession: JN0868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Residues: 1-235 <SHI>
R; Kwon, J.; Chung, I.Y.; Benveniste, E.N.
Gene 132, 227-236, 1993
                                                                                                                                                                                                                                                                                                                                                                                A; Gene: TNF-alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Species: Rattus norvegicus (Norway rat)
C;Date: 07-Jun-1990 #sequence_revision 07-Jun-1990 #text_change 04-Feb-2000
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                                                       Matches
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RETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 T.; Shimizu, N.; Horiguchi, S.; Ito, pl. Chem. 53, 1733-1736, 1989
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                                                                              Score 65; DB 2; Pred. No. 0.0028;
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                                                                                                    Length 235,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene
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                                               Gaps
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                                               0;
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181 KDTPEGAELKPWY 193

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RESULT 12
JQ1344
                                                                                                                                                                                                                               C; Superfamily: tumor necros
C; Keywords: cytokine; cytot
F; 42/Binding site: carbohyd
F; 106-138/Disulfide bonds:
                                                                                                 밁
                                                                                                                              2
                                                                                                                                                                                                                                                                           A;Molecule type: mRNA
A;Residues: 36-38,'s',40-78,'A',80-88,'N',90-114,'Q',116-123,'D',125-144,'G',145-173,'L'
A;Cross_references: EMBL:X77317; NID:g452607; PIDN:CAA54523.1; PID:g452608
                                                                                                                                                                                                                                                                                                                                                          submitted to the EMBL Data
A; Reference number: S41867
A; Accession: S41867
A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tumor necrosis factor alpha precursor - goat (fragment)
N;Alternate names: cachectin; TNF alpha
C;Species: Capra aegagrus hircus (domestic goat)
C;Date: 28-Feb-1990 #sequence_revision 28-Feb-1990 #text_change 31-Jan-2000
C;Accession: S06192; S41867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: mRNA
A; Residues: 1-193 <GOL>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Reference number: S06192
A; Accession: S06192
                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: EMBL:X14828; NID:g992; PIDN:CAA32937.1; PID:g993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R;Goldstein,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Superfamily: tumor necrosis factor C;Keywords: glycoprotein; lipoprotein; myristylation F;19,20/Binding site: myristate (Lys) (covalent) #status F;84/Binding site: carbonydrate (Ser) (covalent) #status
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Introns: 62/3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tumor necrosis factor alpha precursor - white-footed mouse
C;Species: Peromyscus leucopus (white-footed mouse)
C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 04-Feb-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Immunogenetics 35, 351-353, 1992
A; Title: Sequence of the tumor necrosis factor/cachectin A; Reference number: I54490; MUID:92218012; PMID:1348497
                                                                                                                                                                 Matches
                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                 ;Superfamily: tumor necrosis factor
;Reywords: cytokine; cytotoxin; glycoprotein; lymphokine; macrophage;
;42/Binding site: carbohydrate (Ser) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Status: preliminary; translated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Accession: I54490
R;Crew, M.D.; Filipowsky, M.E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Accession: I54490
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Best Local
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     necrosis
                                                                                             140
                                                                                                                                                                                 Local
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                                                                                                                         2 RETPEGAEAKPWY 14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10
                                                                                         RETPE-AEAKPWY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10;
                                                                                                                                                                                Similarity
   factor
                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        81/1; 97/1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Henner,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <RES>
 alpha
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                                                                                         151
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                                                                                                                                                                            73.5%;
92.3%;
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76.9%;
                                                                                                                                                                                                                            #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             D.; Talhouk, A.
Library, March 1989
                                                                                                                                                                                                                                                                                                                                                                                                        Library, January 1994
 precursor -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NID: g202506; PIDN: AAA40596.1;
                                                                                                                                                           0;
                                                                                                                                                                            Score 59.5;
Pred. No. 0.
                                                                                                                                                      Pred. No. 0.0:
); Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 65;
Pred. No.
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horse
                                                                                                                                                                          .019;
                                                                                                                                                                                     DB 2;
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                                                                                                                                                                                       Length 193;
                                                                                                                                                        Indels
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F:19,20/Binding site: myristate (Lys)
F:83/Binding site: carbohydrate (Ser)
F:147-178/Disulfide bonds: #status pre
                                                                                                                                                                                                             C:Genetics: A:Introns: 62/3; 80/1; 96/1
C:Superfamily: tumor necrosis factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: DNA
A; Residues: 1-334 <IT?>
A; Residues: 1-334 <IT?>
A; Residues: 1-334 <IT?>
A; Note: this sequence differs from that shown in having a Gln inserted between residues: 1, 150 molecules of the sequence of
                                                                                                                                                                           C; Keywords: cytokine; cytotoxin; glycoprotein;
                                                                                                                       F;82-234/Product:
                                                                                                                                      F:1-81/Domain: propeptide #status predicted <PRO>
                                                                                                                                                                                                                                                                                                                                    A; Cross-references: GB:M60340;
                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: DNA
A; Residues: 1-62, 'Q', 63-234 <SHA>
                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Status: nucleic acid sequence not shown;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: mRNA
A; Residues: 1-234 <1TO>
A; Cross references: GB:M12845; NID:g165759; PIDN:AAA31486.1; |
R; Ito, H.; Shirai, T.; Yamamoto, S.; Akira, M.; Kawahara, S.;
DNA 5, 157-165, 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Gene: TNF-alpha
A;Gene: TNF-alpha
A;Introns: 62/3; 79/1; 95/1
C;Superfamily: tumor necrosis factor
C;Reywords: cytokine; cytotoxin; glycoprotein; lipoprotein; lymphok
F;78-234/Product: tumor necrosis factor alpha #status predicted <TU
F;19,20/Binding site: myristate (Lys) (covalent) #status predicted
F;82/Binding site: carbohydrate (Ser) (covalent) #status predicted
F;146-178/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Title: Molecular cloning and expression in Escherichia coli of the cDNA coding for A;Reference number: A25454; MUID:86219711; PMID:3519137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Datte: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 04-Feb-2000
C;Accession: A25454, A25451, X30727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Accession: A25454
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tumor necrosis factor alpha precursor - rabbit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R;Su, X.; Morris, D.D.; McGraw, R.A.
Gene 107, 319-321, 1991
A;Title: Cloning and characterization of gene TNF alpha
A;Reference number: JQ1344; MUID:92084125; PMID:1748301
A;Accession: JQ1344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C; Genetics:
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C;Comment: This protein is an important proximal mediator
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C:Species: Equus caballus (domestic hose; Date: 10-Sep-1999 #sequence_revision C:Accession: JQ1344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N;Alternate names: cachectin; TNF alpha C;Species: Equus cahallno /ammin.
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A; Residues: 1-234 <SUX>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       l Similarity
10; Conserv
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                                                                                             tumor necrosis factor #status predicted <MAT>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S.; Kuroda, S.; Sakamoto, H.; Kajihara,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          192
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83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of the gene encoding rabbit tumor; MUID:86219712; PMID:3519138
                                                                                                                                                                                                                                                                                                          GB:M35326; NID:g165754; PIDN:AAA31484.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TNF alpha
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                             (covalent) #status predicted (covalent) #status predicted
                                                                      (covalent)
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                                                                                                                                                                                                                                                                                                                                                                                                                             translation not shown
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0.028;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         in having a Gln inserted between residu Jongeneel, C.V.; Nedospasov, S.A.
                                                                                                                                                                lipoprotein; lymphokine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     lipoprotein; lymphokine;
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of
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endotoxemia
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                                                                                                                                                                macrophage;
                                                                                                                                                                                                                                                                                                                 PID:g165756
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Query Match
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Thes 9; Conservative
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Molecule type: DNA
Residues: 1-469 <SCH>
Cross-references: EMBL:AL353820; GSPDB:GN00112; NCSP:13E11.310
Experimental source: cosmid contig 13E11; strain 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      thylmalony1-CoA mutase, beta subunit - Deinococcus radiodurans (strain R1) Species: Deinococcus radiodurans Species: O3-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 17-Mar-2000
                                                                                                                                                                         Map position: 2
Introns: 277/3
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Molecule type: DNA
Residues: 1-711 <WHI>
Cross-references: GB:AE001958; GB:AE000513; NID:g6458805; PIDN:AAF10655.1; PID:g645881
Experimental source: strain R1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           White, O.; Eisen, J.A.; Heidelberg, J.F.; Hickey, E.K.; Peterson, J.D.; Dodson, R.J.; M.; Shen, M.; Vamathevan, J.J.; Lam, P.; McDonald, L.; Utterback, T.; Zalewski, C.; Ma; Smith, H.O.; Venter, J.C.; Fraser, C.M.
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Best Local Similarity 69.2
Matches 9; Conservative
                                                                                                                                                                                                                   Gene: NCSP:13E11.310
                                                                                                                                                                                                                                                                                                                                                                                                             Schulte, U.; Aign, V.; Hoheisel, J.; Brandt, P.; Fartmann, B.; Holland, R.; Nyakatura bmitted to the Protein Sequence Database, April 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Date: 05-May-2000 #sequence_revision 05-May-2000 #text_change 05-May-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Species: Neurospora crassa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   lated to SGT1 protein (imported) - Neurospora crassa
Alternate names: protein 13E11.310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Map position: 1
Superfamily: human methylmalonyl-CoA mutase; cobalamin-binding homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Title: Genome sequence of the radioresistant bacterium Deinococcus radiodurans R1. Reference number: A75250; MUID:20036896; PMID:10567266 Accession: F75440
                                                                                                                                                                                                                                                                                                                                                                       Reference number: Z24541
Accession: T48783
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111 | 111
459 PEGVEPKPW 467
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                                            5 PEGAEAKPW 13
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69.2%;
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                                                                                  Score 45; DB 2; Length 469; Pred. No. 13; 0; Mismatches 2; Indels
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arch completed: April 4, 2003, 08:42:56

Job time : 12.1613 secs

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Result
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             on:
    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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    length: 0
length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SwissProt_40:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QRETPEGAEAKPWY 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
   DB
TNFA_PERLE
TNFA_HORSE
TNFA_MARMO
TNFA_MARMO
TNFA_FERDIT
APAH_YERDE
MUTB_STRCM
YFCC_CHRVI
MUTB_RHIM
MUTB_RHIM
APAH_ECOLI
APAH_ECOLI
APAH_ECOSI
APAH_ECOSI
RIKJA_HOWAN
Z298_HUMAN
                                                                                                                                                                                                                                                            TNFA_MACMU
TNFA_PAPHU
TNFA_PAPSF
TNFA_TURIT
TNFA_CAPHI
TNFA_CAPHI
TNFA_CEREL
TNFA_CEREL
TNFA_BUVIN
TNFA_SHEED
TNFA_MOUSE
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TNFA_DELLE
TNFA_FELCA
TNFA_HUMAN
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                                                                                                                                                                                                                                                                                                                                                                                                                                           P23563 sus scrofa
Q8wnr1 delphinapte
P19101 felis silve
P01375 homo sapien
P06599
P236939
P16939
P16939
P29553
035734
P060565
0060536
0060536
P16036
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P33620
Q9bea1
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mus musculu
peromyscus
prattus norv
equus cabal
marmota mon
oryctolagus
yersinia pes
streptomyce
chromatium
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0 papio hamad
0 papio sp. (
1 tursiops tr
2 canis famil
6 capra hircu
5 cavia porce
5 cervus elap
                                          rhizobium m
6 escherichia
6 klebsiella
7 escherichia
6 escherichia
8 bacillus su
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felis silve
                             rattus norv
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45	44	43	42	41	40	39	38	37	36	ω 5	34
39	39	39	39	39	39	39	39	39.5	40	40	40
48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.8	49.4	49.4	49.4
589	589	580	536	496	462	356	239	233	1240	1239	1236
1	ب	ب	_	سا	ш	ш	۳	ш	ب	ш	-
MAZS_YEAST	MAYS_YEAST	GAG_FLV	GAG_FSVMD	SRM_MOUSE	YD36_YEAST	GLN3_ORYSA	VV_NDVU2	TNFA_MACEU	POLS_EEEV3	POLS_EEEV	POLS_WEEV
P53051 saccharomyc	P40439 saccharomyc	P10262 feline leuk	P03340 feline sarc	Q62270 mus musculu	Q12069 saccharomyc	P14656 oryza sativ	Q06428 newcastle d	077764 macropus eu	P27284 eastern equ	P08768 eastern equ	P13897 western equ

ALIGNMENTS

TISSUE-MACTOPHAGE; Choi C.S., Molitor T.W., Lin G.F., Mu "Complete nucleotide sequence of a cD necrosis factor-alpha.", Anim. Biotechnol. 2:97-105(1991). [4] SEQUENCE FROM N.A. STRAIN-Large white; TISSUE-Fibroblast MEDLINE-21108615; PubMed=11169259; Chardon P., Rogel-Gaillard C., Cattol Renard C.; "Sequence of the swine major histocom containing all non-classical class I Tissue Antigens 57:55-65(2001). [5] SEQUENCE OF 44-232 FROM N.A. MEDLINE-90034181; PubMed=2478420; Paull U., Beutler B., Peterhans E.; "Porcine tumor necrosis factor alpha: chain reaction and determination of t Gene 81:185-191(1989)I- FUNCTION: Cytokine that binds to interlablin leath of certain tumo pyrogen causing fever by direct induce cell death of certain tumo pyrogen causing fever by direct

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uery Match
est Local
                                                                                                                                                                                                                                                                                                                                                                                      atches
                       15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor ligand superfamily member 2) (Cachectin).
TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                         DELLE
                                                                                                                                      Q8WNR1;
15-JUN-2002
                                                                                                                                                                                  TNFA_DELLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DISULFID SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
  Delphinapterus leucas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; X54001; CAA37949.1; -. EMBL; X54859; CAA38639.1; -. EMBL; X57321; CAA40591.1; -. EMBL; AJ251914; CAB63852.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cytokine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PIR; S12606; S12606.
PIR; S17290; S17290.
PIR; S18965; S18965.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TRANSMEM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -
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                                                                                                                                                                                                                                                                                            177 QRETPEGAEAKPWY 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <del>-</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              interPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ISSP; P01375; 4TSV
                                                                                                                                                                                                                                                                                                                                        1 QRETPEGAEAKPWY 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             proliferation and induce cell differentiation.
SUBUNIT: Homotrimer (By similarity).
SUBCELLULAR LOCATION: Type II membrane protein. Also exists as extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane form by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity).
DISEASE: CACHEXIA ACCOMPANIES
CANCER AND INFECTION, AND IS
AND MALNUTRITION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         proteolytic processing (By similarity).

PTM: The membrane form, but not the soluble form, is

Phosphorylated on serine residues. Dephosphorylation of the

membrane form ocurrs by binding to soluble TNFRSFIA/TNFRI (F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               , εμυυ2012; TNF_abc; 1.
SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IPR003636; TNF_abc. IPR000478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cytotoxin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     144
232
                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA;
                                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           232
77
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                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25254 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Transmembrane; Phosphorylation; Signal-anchor.
32 TUMOR NECROSIS FACTOR, MEMBRANE FORM.
32 TUMOR NECROSIS FACTOR, SOLUBLE FORM.
(Beluga whale).
                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                         Score 81; DB 1; Pred. No. 4.2e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EXTRACELLULAR (POTENTIAL).
CLEAVAGE (BY ADAM17) (BY SIMI
PHOSPHORYLATION (BY CK1) (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYTOPLASMIC (POTENTIAL).
SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BY SIMILARITY
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                                                                                                                                                                             233
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                                                                                                                                                                                                                                                                                                                                                                                                                         Length 232;
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CYTOKINE; C;
Signal-enchor.
CHAIN 78 2.
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DISULFID
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SITE
                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                        PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                     ProDom; PD002012; TNF_abc; SMART; SM00207; TNF; 1.
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   178
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                                                                                                                                                                                                                                                                                                                                                                                                    Pfam; PF00229; TNF;
                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; AF320323; AAL56946.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        proliferation and induce cell differentiation (By similarity)
-!- SUBUNIT: Homotrimer (By similarity).
-!- SUBCELLULAR LOCATION: Type II membrane protein. Also exists a extracellular soluble form (By similarity).
-!- PIM: The soluble form derives from the membrane form by
                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Molecular cloning and characterization of beluga whale (Delphinapterus leucas) interleukin-1beta and tumor necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mammalia; Eutheria; Cetartico Monodontidae; Delphinapterus. NCBI_TaxID=9749;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Cetacea; Odontoceti;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Denis F., Archambault D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PubMed=11768130;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (Delphinapterus leucas) factor-alpha.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            phosphorylated on serine residues. Dephosphorylation of tmembrane form ocurrs by binding to soluble TNFRSF1A/TNFR1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            proteolytic processing (By similarity).
PTM: The membrane form, but not the soluble form,
QRETPEGAEAKPWY
                            QRETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             J. Vet. Res. 65:233-240(2001).
                                                                       Similarity
                                                                                                                                                                                                                                                                                                     Cytotoxin; Transmembrane; Glycoprotein; Phosphorylation;
                                                                                                                     2
145
95
233 AA;
                                                         Conservative
                                                                                                                                                   233
78
2
177
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233
35
56
191
                            14
                                                                                                                     95
25420
                                                                        100.0%;
                                                                                       100.0%;
                                                                                                                     M.
                                                          0;
                                                                                                                                                         EXTRACELLULAR (POTENTIAL)
CLEAVAGE (BY ADAM17) (BY SIMILARITY)
PHOSPHORYLATION (BY CK1) (BY SIMILARITY)
                                                                                                                                                                                                                         TUMOR NECROSIS FACTOR, MEMBRANE FORM.
TUMOR NECROSIS FACTOR, SOLUBLE FORM.
CYTOPLASMIC (POTENTIAL).
SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                   N-LINKED (GLCNAC.
                                                                                                                                                   BY SIMILARITY
                                                                       Pred. No.
                                                                                     Score 81;
                                                                                                                                                                                                                 (POTENTIAL)
                                                                                                                     2DF37DCB2BC9E961 CRC64;
                                                          Mismatches
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                                                                       4.2e-06;
                                                                                        DB 1;
                                                                                    Length 233;
                                                                                                                                   .) (POTENTIAL)
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RESULT 3
TNFA_FELCA
ID TNFA_F

TNFA_FELCA

STANDARD;

PRT;

233 AA

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THERE EXECUTES AND THE PROCESSES OF SECOND S
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Submitted (XXX-1993) to the EMBL/GenBank/DBJ databases.
-!- FUNCTION: Cytokine that binds to TNPRSFIA/TNFR1 and
-NPRSFIB/TNFBR. It is mainly secreted by macrophages and can
induce cell death of certain tumor cell lines. It is potent
pyrogen causing fever by direct action or by stimulation of
interleukin 1 secretion and is implicated in the induction of
cachexia, Under certain conditions it can stimulate cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDIINE-91016860; PubMed-2216740;
McGraw R.A., Coffee B.W., Otto C.M., Drews R.T., Rawlings
"Gene sequence of feline tumor necrosis factor alpha.";
Nucleic Acids Res. 18:5563-5563(1990).
[2]
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TNF OR TNFSF2 OR TNFA.
Felis silvestris catus (Cat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1990 (Rel. 16, Created)
01-NOV-1990 (Rel. 16, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (
                              DOMAIN
SITE
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Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; X54000; CAA37948.1;
EMBL; M92061; AAA30818.1;
PIR; S11688; S11688.
HSSP; P01375; 4TSV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE-Bone marrow;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                   Cytokine;
                                                                                                                                                                                                                                            PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                   SMART; SM00207;
                                                                                                                                                                                                                                                                                                                                                  PRINTS; PR01234; TNECROSISFCT
                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR003636; InterPro; IPR000478;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               between
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                                                                                                             TRANSMEM
                                                                                                                                                                                                                                                                                                                         ProDom; PD002012; TNF_abc;
                                                                                                                                                                                                                                                                                                                                                                                Pfam; PF00229; TNF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     similarity).

DISEASE: CACHEXIA ACCOMPANIES A VARIETY OF CANCER AND INFECTION, AND IS CHARACTERIZED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUBCELLULAR LOCATION: Type II membrane protein. extracellular soluble form (By similarity). PTM: The soluble form derives from the membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     European Bioinformatics Institute. The by non-profit institutions as long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               proteolytic processing (By similarity).
PTM: The membrane form, but not the soluble form,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                proliferation and induce cell differentiation.
SUBUNIT: Homotrimer (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             phosphorylated on serine residues. Dephosphorylation of tl
membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SWISS-PROT entry is copyright. It is produced through een the Swiss Institute of Bioinformatics and the EN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MALNUTRITION
                                                                                                                                                                                                                   Cytotoxin;
        57
76
                                                                                                                                                                                                                                                                                                   TNF;
     233
77
2
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                                                                                                                                                                                                                                                                                                                                                                                                      TNF_abc.
TNF_family.
                                                                                                                                                                                                                         Transmembrane;
EXTRACELLULAR (POTENTIAL) CLEAVAGE (BY ADAM17) (BY PHOSPHORYLATION (BY CK1)
                                                                                                     nbrane; Phosphorylation; Signal-a
TUMOR NECROSIS FACTOR, MEMBRANE
TUMOR NECROSIS FACTOR, SOLUBLE F
CYTOPLASMIC (POTENTIAL).
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                                                                                                                                                            n; Signal-anchor., MEMBRANE FORM.
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Felis.
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  SIMILARITY).
(BY SIMILARITY).
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21-JUL-1986
15-JUN-2002
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                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE-87217060; PubMed-3555974;
Medospasov S.A., Shakhov A.N., Turetskaya R.L., Mett V.A.,
Nedospasov S.A., Shakhov A.N., Torobko V.G., Dobrynin V.N.,
Azizov M.M., Georgiev G.P., Korobko V.G., Dobrynin V.N.,
Filippov S.A., Bystrov N.S., Boldyreva E.F., Chuwpilo S.A.,
Chumakov A.M., Shingarova L.N., Ovchinnikov Y.A.;
"Tandem arrangement of genes coding for tumor necrosis factor
alpha) and lymphotoxin (TWF-beta) in the human genome.";
cold Spring Harb. Symp. Quant. Biol. 51:611-624(1986)."
                                                                                                                                                                                                      Shirai T., Yamaguchi H., Ito H., Todd C.W., "Cloning and expression in Escherichia coli tumour necrosis factor."; Nature 313:803-806(1985).
                                                                                                                                                                                                                                                                                                            MEDLIND=85086244; PubMed=6392892;
MEDLIND=85086244; PubMed=6392892;
Pennica D., Nedwin G.E., Hayflick J.S., Seeburg P.H.
Palladino M.A., Kohr W.J., Aggarwal B.B., Goeddel D.
Palladino M.A., Kohr W.J., Aggarwal B.B., Goeddel D.
Phiman tumour necrosis factor: precursor structure,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ligand superfamily member 2) (Cachectin).
TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-JUL-1986 (Rel. 01, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNT-alpha) (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HUMAN
Science [6]
                                                                                                                                                      SEQUENCE FROM N.A.
MEDLINE=86016093; PubMed=2995927;
Nedwin G.E., Naylor S.L., Sakaguc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TNFA_HUMAN
                                                          Wang
                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. MEDLINE=85137898; PubMed=3883195;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (Human)
                                                                                                                     Nedwin G.E., Naylor S.L., Sakaquchi A.Y., Smi
Jarrett-Nedwin J., Pennica D., Goeddel D.V.,
"Human lymphotoxin and tumor necrosis factor
homology and chromosomal localization.";
                                                                                                                                                                                                                                                                                         homology to lymphotoxin."; Nature 312:724-729(1984).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9606;
                      "Molecular cloning factor.";
                                                                       SEQUENCE FROM N.A.
MEDLINE=85142190; PubMed=3856324;
                                                                                                            Nucleic
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                                               g A.M., Creasey A.A., Ladner Arsdell J.N., Yamamoto R., 1
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28
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"Myristyl acylation of the tumor necrosis specific lysine residues.";
J. Exp. Med. 176.
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Ostade X.V., Tavernier J., Prange T., Fiers W.;
"Localization of the active site of human tumour necrosis (hTNR) by mutational analysis.";
                                                                                     MEDLINE=93018820; PubMed=1402651; Stevenson F.T., Bursten S.L., Loc
                                                                                                                                                                                                                                                                                                                            Watts A.D., Hunt N.H., Wanigasekara Y., Bloomfield G., Wall
Roufogalis B.D., Chaudhri G.;
"A casein kinase I motif present in the cytoplasmic domain
of the tumour necrosis factor ligand family is implicated i
                                                                                                                                                                                                                                                                                                                                                                                                                                                     POCSIK E., Duda E., Wallach D.;
"Phosphorylation of the 26 kDa TNF
transfected HeLa cells.";
J. Inflamm. 45:152-160(1995).
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Shiina S.,
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comparison with mouse tumor necrosis factor.";
Eur. J. Blochem. 152:515-522(1985).
                                                                                                                                                                                                                                                            MUTAGENESIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PHOSPHORYLATION (MEMBRANE FORM).
PubMed-8597870;
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Kawashima E., Shaw A., Johnson M.J., Semon D.,
Ruysschaert M.R., van Vliet A., Fiers W.;
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genomic DNA of 6p21.3 HLA class I region.";
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MEDLINE-97186575;

PubMed-9034191;

EMBL; X02910;

CAA26669.1;

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modified and this statement is not removed. entities requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                         "High resolution crystal structure of a human tumor necrosis fa alpha mutant with low systemic toxicity.";
J. Biol. Chem. 273:2153-2160(1998).
-i- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages and ca induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or bys stimulation of interleukin 1 secretion and is implicated in the induction cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation.
                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
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                                                                                                 the European Bioinformatics Institute.
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"The structure of tumor necrosis factor-alpha Implications for receptor binding.";
J. Biol. Chem. 264:17595-17605(1989).
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MEDLINE=91193276; PubMed=1964681;
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                                                                                                                                                                                               PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form ocurs by binding to soluble TNFRSFIA/TNFRI. DISEASE: CACHEXIA ACCOMPANIES A VARIETY OF DISEASES, INCLUDING CANCER AND INFECTION, AND IS CHARACTERIZED BY GENERAL ILL HEAL.
                                                                                                                                                                    SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
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t D.I., Walker N.P.;
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TNFA_MACFA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (JAN-1997) to the EMBL/GenBank/DDBJ databases.

-: FUNCTION: Cycokine that binds to TMPRSPIA/TMPRI and
-: TWRTSPIB/TMPRE. It is mainly secreted by macrophages and car
induce cell death of certain tumor cell lines. It is potent
pyrogen causing fever by direct action or by stimulation of
interleukin I secretion and is implicated in the induction c
cachexia, Under certain conditions it can stimulate cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ligand superfamily member 2) (Cachectin). TNF OR TNFSE2 OR TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-JUL-1998 (Rel. 36, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
                                                                                                                                                                                       EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-Lymphocytes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=9541;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cercopithecinae; Macaca
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PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
Cytokine; Cytotoxin; Transmembrane; CHAIN 1 23 TUMOR POMAIN 77 233 TUMOR POMAIN 1 35 CYTOPLA
                                                                                        PRINTS; PRO1234; TNECROSISFCT.
ProDom; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                               use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFA_MACFA
                                                                                                                                      InterPro; IPR003636; TNF_abc
InterPro; IPR000478; TNF_fam
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                   or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                  entities requires a license agreement
                                                                                                                                                                                                                                                                                                               between
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 proliferation and induce cell differentiation.
SUBUNIT: Homotrimer (By similarity).
SUBCELLULAR LOCATION: Type II membrane protein. Also exists
extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane form by
                                                                                                                                                                                                                                                                                               European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                    proteolytic processing (By similarity).

PTM: The membrane form, but not the Soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1
                                                                                                                                                                                                                                                                                                                                                             SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                          CANCER AND INFECTION, AND AND MALNUTRITION.
                                                                                                                                                                                                                                                                                                                                                                                                         DISEASE:
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                                                                                                                                                                                                                                                                                                          SWISS-PROT entry is copyright. It is produced through a collaboration en the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                       P01375;
                                                                                                                                                                                                   AB000513; BAA19131.1; -.
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 mbrane; Phosphorylation; Signal-anchor
TUMOR NECROSIS FACTOR, MEMBRANE FORM.
TUMOR NECROSIS FACTOR, SOLUBLE FORM.
CYTOPLASMIC (POTENTIAL).
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Pred. No.
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                                                                                                                                                                                                                                                                                             There are no restrictions
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RESULT 6
TNFA_MACMU
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SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           villinger F.J., Brar S.S., Mayne A.E., "Comparative sequence analysis of cytok nonhuman primates.";
J. Immunol
                                                                                                                                                                 use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vo
Mammalia; Eutheria; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-FFB-1996 (Rel. 33, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor ligand superfamily member 2) (Cachectin).
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                                                                                                                         entities requires a license agreement ( or send an email to license@isb-sib.ch)
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01-FEB-1996
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                                                          EMBL; U19850;
HSSP; P01375;
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                                                                                                                                                                                                          s SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the Eleropean Bioinformatics Institute. There are no resti
                                                                                                                                                                                                                                                                                                                                                                                                           proliferation and induce cell differentiation.
SUBUNIT: Homotrimer (By similarity).
SUBCELLULAR LOCATION: Type II membrane protein. Also exist extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane form by proteolytic processing (By similarity).
PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of th membrane form occurs by binding to soluble TNFRSF1A/TNFR1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages induce cell death of certain tumor cell lines. It is
                                                                                                                                                                                                                                                                                                  AND MALNUTRITION. SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                     DISEASE:
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Pred. No. 4.2
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                                                                                                                                                                                                                                       outstation
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InterPro; IPR003636; TNF_abc
InterPro; IPR000478; TNF_fam

TNF_family

4TSV

ETT DRR DRR ETT

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FA_PAPHU
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PROSITE; PS00251; TNE_1; 1.

PROSITE; PS50049; TNE_2; 1.

Cytokine; Cytotoxin; Transmembrane; Phosphorylation; Signal-anchor.

Cytokine; Cytoki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. MEDLINE=98147379; PubMed=9488055;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates; Cercopithecinae; Papio.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ligand superfamily member 2) (Cachectin). TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-DEC 1998 (Rel. 37, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
                                                                                                                                                                                                                                                                                                                                                                                                     <u>:</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <del>:</del>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Haudek S.B., Redl H., Schlag G., Giroir B.P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Papio hamadryas ursinus (Chacma baboon).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TNFA_PAPHU
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Complementary DNA (cDNA) sequence of baboon tumor necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      178
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation.

SUBUNIT: Homotrimer (By similarity).

SUBCELLULAR LOCATION: Type II membrane protein. Also exists as extracellular soluble form (By similarity).

PTM: The soluble form derives from the membrane form by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . Immunol. 34:1041-1042(1997).

FUNCTION: Cytokine that binds to TNERSFIA/TNFR1 and TNERSFIB/TNFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent induce cell death of the transfer of the etimological section of the secretary of the secr
SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                    Similarity).
DISEASE: CACCEXIA ACCOMPANIES A VARIETY OF CANCER AND INFECTION, AND IS CHARACTERIZED
                                                                                                                                                                                                                                                                                                                            proteolytic processing (By similarity).

PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation
                                                                                                                                                                                                                                                                              membrane form ocurrs by binding
                                                                   AND MALNUTRITION
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      233
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25630 MW;
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CLEAVAGE (BY ADAM17) (BY SIMI
PHOSPHORYLATION (BY CK1) (BY
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9F6F85050595FD59 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                81;
                                                                                                                                                                                                                                                                   es. Dephosphorylation of the to soluble TNFRSF1A/TNFR1 (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       233
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4.2e-06;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                           DISEASES, INCLUDING BY GENERAL ILL HEAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIMILARITY)
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                                                                                                                ILL HEALTH
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RESULT 8
TNFA_PAPSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-FEB-1994 (Rel. 28, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor ligand superfamily member 2) (Cachectin).
TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P33620;
01-FEB-1994 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_fami
Pfam; PF00229; TNF; 1.
similarity).
-!- SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY
                                                                                                                                                                                                                                                                                                                                                 Sanjanwala M., Edwards A.;
Submitted (SEP-1991) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=61183;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cercopithecinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Papio sp. (Baboon).
Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TRANSMEM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SMART; SM00207; TNF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProDom; PD002012;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRINTS; PR01234; TNECROSISFCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; AF019963; AAC31675.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TNFA_PAPSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HSSP; P01375;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 QRETPEGAEAKPWY 14
                                                                                                               FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation.

SUBCELLULAR LOCATION: Type II membrane protein. Also exists as extracellular soluble form (By similarity).
                                     phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSFLA/TNFR1 (
                                                                             proteolytic processing (By similarity).
PTM: The membrane form, but not the soluble form,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QRETPEGAEAKPWY 191
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14; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TNF_abc;
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28, Last seq
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CLEAVAGE (BY ADAM17) (BY S
PHOSPHORYLATION (BY CK1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nbrane; Phosphorylation; TUMOR NECROSIS FACTOR, N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CYTOPLASMIC (POTENTIAL).
SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. 4.2e-06;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score
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European Bioinformatics Institute. There are no restrictions by non-profit institutions as long as its content is in

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Best Local :
                                                                 Shoji Y., Inoue Y., Sugisawa H., Itou T., Endo T., Sakai T.;
"Molecular cloning and functional characterization of bottlenose
dolphin (Tursiops truncatus) tumor necrosis factor alpha.";

Vet. Immunol. Immunopathol. 82:183-192(2001)
-!- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
TNFRSF1A/TNFBR. It is mainly secreted by macrophages and can
induce cell death of certain tumor cell lines. It is potent
pyrogen causing fever by direct action or by stimulation of
interleukin 1 secretion and is implicated in the induction of
cachexia, Under certain conditions it can stimulate cell
profit forestion and is implicated in the induction of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor ligand superfamily member 2) (Cachectin).
TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
       : :
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tursiops truncatus (Atlantic bottle-nosed dolphin).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Cetartiodactyla; Cetacea; Odontoceti;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
Cytokine; Cytotoxin; Transmembrane;
                                                                                                                                                                                                                                                                                                                                    PubMed=11587733;
                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                          Tursiops
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15-JUN-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=9739;
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proliferation and induce cell differentiation (By similarity).
SUBUNIT: Homotrimer (By similarity).
SUBCELLULAR LOCATION: Type II membrane protein. Also exists as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORETPEGAEAKPWY
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233 AA;
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CLEAVAGE (BY ADAM17) (BY SIM1
PHOSPHORYLATION (BY CK1) (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MYRISTATE (BY SIMILARITY).
MYRISTATE (BY SIMILARITY).
BY SIMILARITY.
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TUMOR NECROSIS FACTOR,
CYTOPLASMIC (POTENTIAL)
SIGNAL-ANCHOR (TYPE-II
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 81; Db 1,
No. 4.2e-06;
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     Also exists as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Signal-anchor;
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Best Local
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                                                                                                                                                                                                                                                                                                 P51742; Q28339;
01-0CT-1996 (Rel. 34, Last sequence update)
01-0CT-1996 (Rel. 34, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor ligand superfamlly member 2) (Cachectin)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
SITE
                                                                                                                                                                                                                                 Canis familiaris (Dog).
Canis familiaris (Condata)
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ProDom; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
SEQUENCE FROM N.A.

Zucker K., Lu P., Fuller L.,

"Cloning and expression of tl
factor-alpha in E. coli.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
Cytokine; Cytotoxin; Transmembrane; Glycoprotein; Phosphorylation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                Submitted
                                                                                                                                    Fiers
                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                              NCBI_TaxID=9615;
                                                                                                                                                                                                                                                                                    TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                    TNFA_CANEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Signal-anchor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; AB049358; BAE
HSSP; P01375; 4TSV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the European Bioinformatics Institute. T
use by non-profit institutions as long
                                                                                                                                                                                                                        Mammalia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 QRETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 similarity).
SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           proteolytic processing (By similarity).
PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               extracellular soluble form (By similarity). PTM: The soluble form derives from the membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORETPEGAEAKPWY
                                                                                                                                    Σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                            Beernaert (
(JAN-1996)
                                                                                                                                                                                                                    Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           57
77
2
145
95
233 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             78
78
36
                                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BAB39855.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           233 E
78 C
78 C
177 . B
177 . B
95 N
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τ.:
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233
56
                                                                                                                                                                                                                    Carnivora;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            191
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
                                                                                                            the
                        the
                                                                                                            EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                              Asthana D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-LINKED (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PHOSPHORYLATION (BY BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EXTRACELLULAR (POTENTIAL). CLEAVAGE (BY ADAM17) (BY S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYTOPLASMIC (POTENTIAL).
SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TUMOR NECROSIS FACTOR, MEMBRANE FORM.
TUMOR NECROSIS FACTOR, SOLUBLE FORM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL)
                                                                                                                                                                                                                                      Craniata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 81;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                          CDNA
                                                                                                                                                                                                                    Fissipedia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                71CC39C699CC49D9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                          for
                                                                                                                                                                                                                                                                                                                                                                                                                                    233
                                                                                                                                                                                                                    Vertebrata;
ia; Canidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           There are no rest
                          canine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4.2e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 1;
                                              Esquenazi V., Miller J.;
                                                                                                            databases
                          tumor necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 233;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CK1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                            necrosis factor
                                                                                                                                                                                                                    Euteleostomi; Canis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    form
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Уď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (Ву
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                o
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
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Matches
                                                                                                        Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00251; TNF_1: 1.

PROSITE; PS00251; TNF_1: 1.

PROSITE; PS00251; TNF_2: 1.

Cytokine; Cytotoxin; Transmembrane; Phosphorylation; Signal-a....

Cytokine; Cytotoxin; Transmembrane; Phosphorylation; Signal-a....

TUMOR NECROSIS FACTOR, MEMBRANE FORM.

CHAIN

1 35 CYTOPLASMIC (POTENTIAL).

SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTICED AND ANCHOR (TYPE-II MEMBRANE PROTICED ANCHOR).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; X94932; CAA64
EMBL; S74068; AAB32
EMBL; Z70046; CAA93
HSSP; P01375; 4TSV.
                                                                                                                                                                                               CONFLICT
CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                        DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pfam; PF00229; TNF; 1.
PRINTS; PR01234; TNECROSISFCT.
ProDom; PD002012; TNF_abc; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ++
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gilmore W.H., Carter S.D., Bennett M., Barnes A., Kelly D.F.;
Submitted (MAR-1996) to the EMBL/GenBank/DDBJ databases.
-i- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
TNFRSF1B/TNFBR. It is mainly secreted by macrophages and
                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                               CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              modified and this statement is not removed. entitles requires a license agreement (See
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>.</u>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN-Beagle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE OF 74-205 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lymphokine Res. 13:191•196(1994).
[3]
                                                                                                                                                                                                                                                                                        CONFLICT
                                                                                                                                                                                                                                                                                                                                                   MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR000478;
178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro;
                                           1 QRETPEGAEAKPWY 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               proliferation and induce cell differentiation.

SUBUNIT: Homotrimer (By similarity).

SUBCELLULAR LOCATION: TYPE II MEMBRANE PROTEIN. ALSO EXISTS AS EXTRACELLULAR SOLUBLE FORM (BY SIMILARITY).

PYM: THE SOLUBLE FORM DERIVES FROM THE MEMBRANE FORM BY PROTEDLYTIC PROCESSING (BY SIMILARITY).

PYM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AND MALNUTRITION. SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TNERSFIB/TNFBR It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISEASE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CANCER AND INFECTION, AND IS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           similarity).
QRETPEGTEAKPWY 191
                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           non-profit institutions as long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IPR003636; TNF_abc
                                                                                                                                                                                                                 57
76
145
59
66
74
1111
                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACHEXIA ACCOMPANIES A VARIETY OF DISEASES, INCLUDING ND INFECTION, AND IS CHARACTERIZED BY GENERAL ILL HEALTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               form ocurrs by binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAA93908.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAA64403.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB32391.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-Blood;
                                                                                                      95.1%;
92.9%;
                                                                                                                                                                           25447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TNF_family.
                                                                                                                                                                           WW.
                                                                                                                                                                                             BY SIMILARITY.

QR -> PE (IN REF. 2).

G -> C (IN REF. 3).

A -> V (IN REF. 3).

A -> D (IN REF. 2).

G -> D (IN REF. 2).

IY -> DS (IN REF. 2).
                                                                                  0
                                                                                                           Pred.
                                                                                                                             Score 77;
                                                                                                                                                                                                                                                                                                                                                                      EXTRACELLULAR (POTENTIAL)
CLEAVAGE (BY ADAM17) (BY
                                                                                                                                                                                                                                                                                                                                               PHOSPHORYLATION (BY CK1) (BY SIMILARITY)
                                                                                                                                                                      7B2588FBC8B25340 CRC64;
                                                                                      Mismatches
                                                                                                        77; DB 1;
No. 1.9e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               to soluble TNFRSF1A/TNFR1 (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                There are no rest
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Usage
                                                                                                                             Length 233,
                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                     MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Signal-anchor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         restrictions
tent is in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and
                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    for
                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       commercia
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RESULT 11
TNFA_CAPHI
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p13296; Q28320; Q9MYZZ;
01-JAN-1990 (Rel. 13, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
                                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Entropean Bioinformatics Institute. There are no restructed by non-profit institutions as long as its content modified and this statement is not removed. Usage by anc
EMBL; D86587; BAA13130.1; --
EMBL; X14828; CAA32937.1; AI
EMBL; AF276985; AAF87741.1;
EMBL; X77317; CAA54523.1; --
                                                                                                                                                         entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               + +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rimstad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Wang B., Zhang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE-Ovarian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 41-234 FROM N.A.
Goldstein I.M., Henner D., Talhouk A.;
Submitted (MAR-1989) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (JUL-1996) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Takakura H., Mori Y., Tatsumi M.; "Molecular cloning of caprine TNF-alpha cDNA and its expression E.coli and insect cells.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bovidae; Caprinae; Capra.
NCBI_TaxID=9925;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Capra hircus (Goat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ligand superfamily member 2) (Cachectin). TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <del>-</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (JAN-1994) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE-Blood;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 75-234 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 44-234 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=Splenocyte;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Goat ovarian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIMILARITY).

DISEASE: CACCOMPANIES A VARIETY OF DISEASES, INCLUDING CANCER AND INFECTION, AND IS CHARACTERIZED BY GENERAL ILL HEALTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             proliferation and induce cell differentiation.
SUBUNIT: Homotrimer (By similarity).
SUBCELLULAR LOCATION: Type II membrane protein. Also exists extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane form by
                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY. CAUTION: Ref. 2 sequence differs from that shown due to \varepsilon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages induce cell death of certain tumor cell lines. It is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1 (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     proteolytic processing (By similarity).
PTM: The membrane form, but not the soluble form,
                                                                                                                                                                                                                                                                                                                                                                                                               frameshift in position 60.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AND MALNUTRITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (JUN-2000)
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n TNF alpha c
nn00) to +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           follicle;
                                                              .1; ALT_FRAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cDNA sequence.";
the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                      restrictions
                                                                                                                                                                                                                           and
                                                                                                                                                                                                                                                                                                                       EMBL outstation
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                                                                                                                                                                                                                                                                                                                                                       a collaboration
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PIR; S06192; S06192. HSSP; P01375; 4TSV.

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RESULT
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Best Local
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CONFLICT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE: PS00251; TNF_1; 1.

PROSITE; PS50049; TNF_2; 1.

Cytokine; Cytotoxin; Transmembrane; Phosphorylation; Signal-anchor Cytokine; Cytotoxin; Transmembrane; Phosphorylation; Ph
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProDom; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              _CAVPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pfam; PF00229; TNF;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                            MEDLINE=97462215; PubMed=9316485;
White A.M., Yoshimura T., Smith A.W., Westwi
"Airway inflammation induced by recombinant
                                                                                                                                                                                                                                                                                                                    STRAIN-Hartley; TISSUE-Lung; Yuan H.T., Kelly F.J., Bingl
                                                                                                                                                                                                                                                                                                                                                                                                                  Cavia porcellus (Guinea pig).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eut
Mammalia; Eutheria; Rodentia; Hystricognathi; Caviidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ligand superfamily member 2) (Cachectin). TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
                                                                                                                                                                                                                                      SEQUENCE FROM N.A. STRAIN-Dunkin-Hartley;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                 Yuan H.T., Kelly F.J., Bingle C.D.; Submitted (NOV-1995) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=10141;
                                                                                                                                                          factor-alpha.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 RETPEGAEAKPWY
                pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction cachesia, Under certain conditions it can stimulate cell
                                                                            J. Physiol. 273:L524-L530(1997).
FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFRS. It is mainly secreted by macrophages and induce cell death of certain tumor cell lines. It is potential.
  proliferation and induce cell differentiation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RETPEGAEAKPWY
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13; Conser
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E -> A (
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E -> EG
MISSING
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Pred. No.
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PHOSPHORYLATION (BY CK1) (
CLEAVAGE (BY ADAM17) (BY S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BY SIMILARITY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
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O (IN REF. 4).
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2.7e-05;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                            Watson M.L.;
pig tumor necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                           Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                             Cavia
                                                                              and can
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 RRAP OCC OCC RRAP
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                                                                                                                                                                                                                                                 RESULT 13
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                 MOD_RES
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -
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EMBL; U77036;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         use by non-profit institutions as long modified and this statement is not removed.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ---
                                                                                                                     01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor ligand superfamily member 2) (Cachectin) (Fragment).
TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1.
                                                                                                                                                                                                       TNFA_CEREL P51743;
                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SMART; SM00207;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00229; TNF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HSSP; P06804;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      between
                                                                  Cervidae;
                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pec
                                                                                                          Cervus elaphus (Red
SEQUENCE FROM N.A. Lockhart E.A.; Submitted (SEP-199
                                                                                                                                                                                                                                                                                           179
                                                   NCBI_TaxID=9860;
                                                                                                                                                                                                                                                                                                                   1 QRETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBCELLULAR LOCATION: Type II membrane protein. Also exists as extracellular soluble form (By similarity). PTM: The soluble form derives from the membrane form by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUBUNIT: Homotrimer (By similarity).
SUBCELLULAR LOCATION: Type II membra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             proteolytic processing (By similarity).

PTM: The membrane form, but not the phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1 (1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISEASE: ĈACHEXIA ACCOMPANIES A VARIETY OF CANCER AND INFECTION, AND IS CHARACTERIZED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AND MALNUTRITION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SWISS-PROT entry is copyright. It is produced through a collaboration sen the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                                                                                                                          OKETPEGAERKPWY 192
                                                                                                                                                                                                                                                                                                                                              l Similarity
12; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cytotoxin; Transmembrane; Phosphorylation; Signal-anchor.

1 234 TUMOR NECROSIS FACTOR, MEMBRANE FORM.

80 234 TUMOR NECROSIS FACTOR, SOLUBLE FORM.

1 35 CYTOPLASMIC (POTENTIAL).

25 CYTOPLASMIC (POTENTIAL).

26 SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN).
 (SEP-1994) to the EMBL/GenBank/DDBJ databases
                                                                     Cervinae;
                                                                                                                                                                                                                                                                                                                                                                                                    147
234 AA;
                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                            57
79
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                                                                                                                                                                                                                       STANDARD;
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85.7%;
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                                                                                                                                                                                                                                                                                                                                                              Pred.
                                                                                                                                                                                                                                                                                                                                                                          Score 73;
                                                                                                                                                                                                                                                                                                                                                                                                                                  PHOSPHORYLATION (BY CK1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL)
                                                                                                                                                                                                                        PRT;
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                                                                                                                                                                                                                                                                                                                                                               No.
                                                                                  Ruminantia; Pecora; Cervoidea;
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                                                                                                                                                                                                                                                                                                                                                              DB 1; 1
8.5e-05;
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BY GENERAL
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                                                                                                Euteleostomi;
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                                                                                                                                                                                                                                                                                                                                                                                                                                   (BY SIMILARITY).
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?A_BOVIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 datches
                                                                                                                                                                                                                                                                                                 TNFA_BOVIN STANDARD; PRT; 233 AA. Q06599; O18779; O1-UN-1994 (Rel. 29, Created) O1-UN-1994 (Rel. 29, Last sequence update) 15-UN-2002 (Rel. 41, Last annotation update) Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor transparent transparent
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DISULFID
                                                                                                                                                                                           Bos taurus (Bovine).
Eukaryota; Metazoa; Chordata; Craniata; Vertebra
Mammalia; Eutheria; Cetartiodactyla; Ruminantia;
                                                                                                              Bovidae; Bovinae;
NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin I secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation.

-! SUBURIT: Homostimer (By similarity).
-! SUBCELLULAR LOCATION: TYPE II MEMBRANE PROTEIN. ALSO EXISTS AS AN EXTRACELLULAR SOLUBLE FORM (BY SIMILARITY).
-! PTM: THE SOLUBLE FORM DERIVES FROM THE MEMBRANE FORM BY PROTEDLYTIC PROCESSING (BY SIMILARITY).
-! DISEASE: CACHEXIA ACCOMPANIES A VARIETY OF DISEASES, INCLUDING CANCER AND INFECTION, AND IS CHARACTERIZED BY GENERAL ILL HEALTH AND MAINTENTATION.
MEDLINE=94083525; PubMed=8260599;
                                      SEQUENCE FROM N.A.
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PROSITE; PS50049; TNF_2; 1.
Cytokine; Cytotoxin; Transmembrane; Signal-anchor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; U14683; AAA50759.1; -. HSSP; P01375; 4TSV.
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73
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92.3%;
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Pred. No. 0.00054;
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CLEAVAGE (BY ADAM17) (BY SIMILARITY)
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TUMOR NECROSIS FACTOR, SOLUBLE FORM.
CYTOPLASMIC (POTENTIAL).
SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL)
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minantia; Pecora;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 229;
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cora; Bovoidea
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THE THE TARKET AND DESCRIPTION OF THE TRANSPORT OF THE TR
       MOD_RES
DISULFID
VARIANT
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PROSITE; PS50049; TNF_2; 1.
Cytokine; Cytotoxin; Transmembrane; Phosphorylation; Signal-anchor;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 the European Bioinformatics Institute. There are no rest
use by non-profit institutions as long as its content
modified and this statement is not removed. Usage by an
                                                                                                                        SITE
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                                                                                                                                                                                                                                                                                                                                                                          Polymorphism.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF00229; TNF; 1.
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InterPro; IPR000478; TNF_family.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cludts I., Cleuter Y., Kettmann R., Burny A., Droogmans L.; "Cloning and characterization of the tandemly arranged bovine lymohotoxin and tumour necrosis factor-alpha genes.";
                                                                                                                                                                                                                                                                        NIAMOC
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"Bovine TNF-alpha gene.";
Submitted (JUL-1997) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                lymphotoxin and tumour necrosis factor-alpha genes Cytokine 5:336-341(1993).
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SUBCELULIAR LOCATION: Type II membrane protein. Also exists a extracellular soluble form (By similarity).

PTM: The soluble form derives from the membrane form by support the membrane form by the form the membrane form the membrane form the membrane form the fo
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PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the phosphorylated on serine residues of the phosphorylated on serine residues.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISEASE: CACHEXIA ACCOMPANIES A VARIETY OF DISEASES, INCLUDING CANCER AND INFECTION, AND IS CHARACTERIZED BY GENERAL ILL HEALTH AND MALNUTRITION.
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DISEASE: CA
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77
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EXTRACELLULAR (POTENTIAL).
CLEAVAGE (BY ADAM1') (BY SIMILARITY).
PHOSPHORYLATION (BY CK1) (BY SIMILARITY)
BY SIMILARITY.
F -> C (IN STRAIN N'DAMA).
                                                                                                                                                                                                                   TUMOR NECROSIS FACTOR,
TUMOR NECROSIS FACTOR,
CYTOPLASMIC (POTENTIAL)
SIGNAL-ANCHOR (TYPE-II
                                                                                                                                                                                        (POTENTIAL)
                                                                                                                                                                                                                      MEMBRANE PROTEIN
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Best Local
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Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor ligand superfamily member 2) (Cachectin).
TNF OR TNF5F2 OR TNFA.
Ovis aries (Sheen)
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P23383;
01-NOV-1991
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Sequence of the cDNA encoding ovine tumor necrosis factor-alpha: problems with cloning by inverse PCR.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mammalia; Eutheria; Ceta
Bovidae; Caprinae; Ovis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                 <del>-</del>
                                                                                                                                                                                                                                                                   Immunol. Cell Biol. 69:273-283(1991)
11- FUNCTION: Cytokine that binds to TNFRSFIA/TNFR1 and
TNFRSFIB/TNFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin I secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell
                                                                                                                                                                                                                                                                                                                                                                           alpha.";
                                                                                                                                                                                                                                                                                                                                                                                                        Andrews A.E., Nash A.D., Barcham G.
                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=92155784; PubMed=1786996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Green I.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE-Alveolar macrophage;
MEDLINE-92112044; PubMed-1765267;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Young A.J., Hay J.B., Chan J.Y.C.; "Primary structure of ovine tumor necrosis factor alpha cDNA."; Nucleic Acids Res. 18:6723-6723(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-91067496; PubMed-2251151;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     179
                                                                                                                                                                                                                                                                                                                                                                                          "Molecular cloning, expression and
                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gene 109:203-210(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9940;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 RETPEGAEAKPWY
                                                                                                                                                              proteolytic processing (By similarity).
PTM: The membrane form, but not the soluble form,
                                                                                                                                                                                                         proliferation and induce cell differentiation.
SUBUNIT: HOMOTIAMET (By similarity).
SUBCELLULAR LOCATION: Type II membrane protein. Also exists
extracellular soluble form (By similarity).
European Bioinformatics Institute.
                                                       SIMILARITY: BELONGS TO THE TUMOR NECROSIS
                                                                       CANCER AND INFECTION, AND AND MALNUTRITION.
                                                                                                      DISEASE:
                                                                                                                    similarity).
                                                                                                                                phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSE1A/TNFR1 (By
                                                                                                                                                                                              PTM: The soluble form derives from the membrane form by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RETPEWAEAKPWY 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 Similarity
12; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         233 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sargan D.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                     CACHEXIA ACCOMPANIES A VARIETY OF DISEASES, 1 ND INFECTION, AND IS CHARACTERIZED BY GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        62
25439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           84.0%;
92.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 68; [Pred. No. 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (F)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
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8AF55C002A9763B0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                          .J., Brandon M.R.; characterization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .00055;
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are no
                                                         FACTOR FAMILY
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restrictions
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Вþ
                                         Matches
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Best Local
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DISULFID
CARBOHYD
CONFLICT
                                                                                                                                                                                                                                                                                                                                                       EMBL; X55966; CAA39437.1; -.
EMBL; X55152; CAA48052.1; -.
EMBL; X56756; CAA40076.1; -.
EMBL; A19163; CAA401445.1; -.
EMBL; S13114; S13114.
                                                                                                                                         SITE
                                                                                                                                                                                                                             PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
Cytokine; Cytotoxin; Transmembrane; Glycoprotein; Phosphorylation;
                                                                                                                                                                                                                                                                                                                                                                                                                         modified and this statement is not removentities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                CHAIN
                                                                                                                                                                                                           CHAIN
                                                                                                                                                                                                                                                                       PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1.
                                                                                                                                                                                                                                                                                            InterPro; IPR003636; TNF_abc.\
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                           PIR; S20661; S20661.
PIR; JH0529; JH0529.
HSSP; P01375; 4TSV.
                                                                                   SEQUENCE
                                                                                                                                                    DOMAIN
                                                                                                                                                                         TRANSMEM
                                                                                                                                                                                                                                                              SMART; SM00207
                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                     Signal-anchor.
 180
                     N
RETLEGAEAKPWY
                     RETPEGAEAKPWY
                                                   Similarity
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                                                                                    234 AA;
                                         Conservative
                                                                                                                                                                                    1
78
1
                                                                                                                                                                                                                                                              TNF; 1
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78
78
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178
96
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25536
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234
35
                                                   81.5%;
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                                                   Score 66; DB 1;
Pred. No. 0.0012;
                                                                                              N-LINKED (GLCNAC. ... MISSING (IN REF. 1).
                                                                                                                   EXTRACELLULAR (POTENTIAL).
CLEAVAGE (BY ADAM17) (BY SIMILARITY).
PHOSPHORYLATION (BY CK1) (BY SIMILARITY).
BY SIMILARITY.
                                                                                                                                                                        CYTOPLASMIC (POTENTIAL).
SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                            TUMOR NECROSIS FACTOR,
                                                                                                                                                               (POTENTIAL)
                                                                                    4BCF8CCAB7956B88 CRC64;
                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                 removed
                                                                                                                                                                                                                                                                                                                                                                                                                                      (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                            as its content
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Usage
                                                               Length 234;
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Search completed: April 4, 2003, 08:40:26 Job time: 7.64516 secs

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Minimum DB
Maximum DB
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No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                          Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Post-processing:
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
                                                                                                                                                                         Score
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seq length:
 US-09-779-703-1
81
1 QRP#m^-
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Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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2
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sp_bacteriap:*
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sp_unclassified:*
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Q9JI26
Q9TTG7
Q97538
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097543
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                Q9uiv3 homo sapien
Q9bec4 talpa europ
Q3647 homo sapien
Q9beg0 cyclopes di
Q9beg1 bradypus tr
Q9bee8 erinaceus e
Q9bec5 tenrec ecau
Q27978 bos taurus
Q91214 sigmodon hi
Q9erg6 peromyscus
Q91126 rattus norv
                                                                                                                                           Q9p1q2 homo sapien O97543 aotus nancy
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aotus lemur
aotus vocif
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                                                                                                                                          aotus nancy
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	42	42	42	42	42				43			43	43		43.5	44	44	44	44	44	44	45	47	5 3		59	61	63	63
•	51.9	•	•	51.9	•	٠	•	•	53.1	53.1	53.1	53.1	53.1	53.1	53.7	54.3	54.3	54.3	54.3	54.3	•			•		•	75.3	77.8	77.8
	801	800	400	350	335	187	187	1677	1236	1021	902	674	674	157	879	1003	713	406	299	140	77	466	711	215	216	234	235	216	149
	11	11	17	16	11	17	17	11	12	16	4	13	13					N	2	w	13	w	16	11	σ	9	11	11	σ
	Q9WTM8	Q63257	Q8TXJ7	Q8Z375	Q99LM9	Q8U0D6	Q9V0A1	070373	Q9J1K1	Q9KSQ8	Q9UPR6	Q9PT82	Q9PT83	90HA80	076978	Q9P2F3	Q8U9Z5	Q8VPN0	Q93A65	Q9Y8D2	Q8UW12	Q9P6Y5	Q9RVE5	Q99ND1	Q9BEC9	Q9TTJ3	Q9JI27	070332	Q9TTG8
	Q9wtm8 rattus norv	Q63257 rattus norv	Q8txj7 methanopyru							Q9ksq8 vibrio choi		N	xenopus	Q8yhq6 brucella me	ι,	Q9p2f3 homo sapien	agr			Q9y8d2 cochiloboiu	\sim	neurospor	Q9rve5 deinococcus		٥	Q9ttj3 equus cabal		Ν	Ωŀ

ALIGNMENTS

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RESULT 1
Q9P1Q2
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                      Qy
                                             Query Match
Best Local S
Matches 14
                                                                                                           InterPro; IPR003636; TNE_abc.
InterPro; IPR000478; TNE_family.
Pfam; PF00229; TNE; 1.
PRINTS; PR01234; TNECROSISFCT.
PRODOm; PD002011; TNE_abc; 1.
PROSITE; PS50049; TNE_2; 1.
NON_TER
66
66
66
                                                                                                                                                                                                                                                                               APC1 protein (Fragment).
Homo Sapiens (Human).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bukaryota, Metazoa; Chordata; Catarrhini; Hominidae; Homo.
McBL_TaxID=9806;
                                                                                                                                                                                                                                                                                                                                            Q9P1Q2;
01-OCT-2000 (TrEMBLrel. 15,
01-OCT-2000 (TrEMBLrel. 15,
01-DEC-2001 (TrEMBLrel. 19,
                                                                                                                                                                                              TISSUE-PROSTATE TUMOR;
Shao C., Yan W., Zhu F., Yue W., Chai Y., Zhao Z., Wang C.;
Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AF098751; AAF71992.1; -.
HSSP; P01375; 5TSW.
                                                                                               NON_TER
                                                                                                                                                                                                                                                                                                                                                                                               Q9P1Q2
                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
 30
               1 QRETPEGAEAKPWY 14
ORETPEGAEAKPWY 43
                                               l Similarity
14; Conserv
                                                                                                66 66
66 AA; 7300 MW; C58DC35377E6D368 CRC64;
                                             100.0%;
ilarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                               Created)
Last sequence update)
Last annotation update)
                                                   0;
                                                 Score 81; DB 4;
Pred. No. 8.5e-06;
); Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                 66
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                                                    0
                                                                        Length 66;
                                                    Indels
                                                    0;
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RESULT 097543

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Matches
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                                                                                                                                                                                van Dijk M.A.M., de Jong W.W.;
"Indels indicate that rodents are monophyletic and lagomorphs are their sister group.";
Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ286829; CAC28518.1;
HSSP; P01375; 4TSV.
                                                                                                                                                                                                                                                                                                                                                                                    TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NON_TER
                                                   PROSITE;
                                                                                                                                                                                                                                                                                                                                Cabassous unicinctus (Southern naked-tailed armadillo).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Edentata; Dasypodidae; Cabassous.
                                                                                                                                                                                                                                                                                                                                                                                                   Tumor necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUN-2001
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q9BEF4;
01-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q9BEF4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL, AF014513, AAD1539.1; -.
HSSP; P01375; 4TSV.
InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     in 4 Aotus species.";
Submitted (JUL-1997) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Echeverry S.J., Hernandez E., "Identification, cloning and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TNF - ALPHA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tumor necrosis factor alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-MAY-1999 (TrEMBLrel. 10, 01-MAY-1999 (TrEMBLrel. 10, 01-OCT-2001 (TrEMBLrel. 18,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAY-1999
01-MAY-1999
                                                                                  ProDom; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
                                                                                                                                    Pfam; PF00229;
                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=48852;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF00229;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Aotus nancymaae (Owl monkey).
                                                                                                                    PRINTS; PR01234; TNECROSISFCT
                                                                                                                                                     InterPro;
                                                                                                                                                                   InterPro;
                      NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity 100. nes 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 QRETPEGAEAKPWY 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QRETPEGAEAKPWY 108
                                                 PS00251; TNF_1; 1.
PS50049; TNF_2; 1.
                                                                                                                                              IPR000478; TNF_family.
                                                                                                                                                            1PR003636; TNF_abc
   217
217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     149 AA;
                                                                                                                                                                                                                                                                                                                                                                                                              (TIEMBLrel. 17, Created)
(TIEMBLrel. 17, Last sequence update)
(TIEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     149
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                  TNF;
                                                                                                                                                                                                                                                                                                                                                                                                   factor (Fragment).
   Α,
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 23742 MW;
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Platyrrhini; Cebidae;
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83C591DD6883FD86 CRC64;
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O9UIV3;
O1-MAY-2000 (TrEMBLrel. 13;
O1-MAY-2000 (TrEMBLrel. 13;
O1-DEC-2001 (TrEMBLrel. 19;
                      MEDLINE-91086846; PubMed=1670638;
Messer G., Spengler U., Jung M.C., Honold G., Bloemer K., Pape G.R., Riethnueller G., Weiss E.H.;
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                                                                                                                                                                                                                                                                                 Browning J.L., Ngam-ek A., Lawton P., DeMarinis J., Tizard R., Chow E.P., Hession C., O'Brine-Greco B., Foley S.F., Ware C.F. "Lymphotoxin-beta: A new member of the T.NF family that forms a heteromeric complex with lymphotoxin on the cell surface.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Allograft inflammatory factory-1. A cytokine-responsive macrophage molecule expressed in transplanted human hearts."; Transplantation 61:1387-1392(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Dense Alu clustering and a potential new member of the NFkappaB family within a 90 kilobase HLA class III segment.";
Nat. Genet. 3:137-145(1993).
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Iris F., Bougueleret L., Prieur S., Cater
Jurka J., Rodriguez-Tome P., Claverie J.,
                                                                                                                                                      "Human lymphotoxin and tumor necrosis factor genes: structure homology and chromosomal localization."; Nucleic Acids Res. 13:6361-6373(1985).
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Pennica D., Goeddel D.V., Gray P.W.;
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                      Cell 72:847-856(1993).
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SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE-94362679; PubMed-8081366;
Albertella M.R., Campbell D.R.;
Characterization of a novel gene in the human major histocompatibility complex that encodes a potential new I kappa B family of proteins.";
I kappa B family of proteins.";
Mol. Genet. 3:793-799(1994).
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MEDLINE-95334911; PubMed-7601445;

Peelman L., Chardon P., Nunes M., Renard C., Geffrotin C., Valman M.,

Van Zeveren A., Coppieters W., Van de Weghe A., Bouquet Y., Choy W.,

Strominger J., Spies T.;

The BATI Gene in the MIC Encodes an Evolutionarily Conserved Putative

Nuclear RNA Helicase of the D-E-A-D Family.";
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Q9BEC4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Complex expression patern of the TNF region differential regulation, initiation, and alte Genomics 45:591-600(1997).
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"Alternative splicing of the LST-1 gene located histocompatibility complex on human chromosome (but the confidence of the companion of the companio
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Weiss E.H.;
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InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
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EMBL; Y14768; CAA75070.1;
HSSP; P01375; 4TSV.
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PS50049; TNF_2; 1.
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"Indels indicate that rodents are monophyletic and lagon
their sister group.";
Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ286831; CAC28539.1; ".
HSSP; P01375; 1A8M.
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Submitted (JAN-1998) to the
EMBL; AF043342; AAC03542.1;
HSSP; P01375; 1A8M.
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PRINTS; PR001234; TNECROSISFCT
ProDom; PD002012; TNF_abc; 1.
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Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                         Tumor necrosis factor
                                                               SEQUENCE
                                                                                   PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                  InterPro; IPR003636; TNF_abc
InterPro; IPR000478; TNF_fam.
                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                      Homo sapiens (Human)
                                                                                                                                                                                                                                      NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                     169
                                                                          NON_TER
                                                                                                                                                                                                                                                                                                                                                                   σ
                                                                                                                                                                                                                                                                                                                                                                                                            1 QRETPEGAEAKPWY 14
 1 QRETPEGAEAKPWY 14
                                                                                                                                                                                                                                                                                                                                                                                                    ORETPEGAEARPWY 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SM00207;
                                                                                                                                                                                                                                                                                                                                                                                                                                            l Similarity
13; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      216
216 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Metazoa;
                                                                                                                                                                                                                                                                                            3 (TrEMBLrel. 06, 3 (TrEMBLrel. 06, 1 (TrEMBLrel. 19, 1 (TrEMBLrel. 19, 1) Sis factor alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (TrEMBLrel.
                                                               157 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                      Conservative
                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TNF; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    216
; 23542 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      opean mole).
Chordata; Craniata; Vei
Insectivora; Talpidae;
                                                                17380 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TNF_family
                                93.8%;
92.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       96.3%;
                                                                                                                                                  TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17, Created)17, Last sequence update)19, Last annotation updat
                                                                                                                                                                                               EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                  Last
                                                                                                                                                                                                                                                                                             (Fragment)
                                                                                                                                                                                                                                                                                                                           Created)
                      0,
                                Score 76;
Pred. No.
                                                                                                                                                                                                                                                                                                       Last annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 78; DB 6;
Pred. No. 9.2e-05;
L; Mismatches 0
                                                                                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FFFEFE8DBBD27836 CRC64;
                                                                D1344822267E9F20 CRC64;
                       Mismatches
                                                                                                                                                                                                                                                                                                       sequence update) annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    monophyletic and lagomorphs
                                                                                                                                                                                                                                                                                                                                                  157
                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Vertebrata;
ae; Talpa.
                                            DB 4;
                                                                                                                                                                                                                                                                                                                                                  A
                                  .00014;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            update)
                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 216;
                                           Length 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                               0
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                         Gaps
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                         0,
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Matches
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                                                                                                                                SEQUENCE FROM N.A. yellong W.W.; van Dilk M.A.M., de Jong W.W.; van Dilk M.A.M., de Jong W.W.; "Indels indicate that rodents are monophyletic and lagomorphs their sister group."; bubmitted (FEB-2000) to the EMBL/GenBank/DDBJ databases. EMBL; AJZ86827; CAC28513.1; -. EMBL; BJZ86827; CAC28513.1; -.
PRINTS; PR01234; TNECROSISFCT.
ProDom; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
                                                                   InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                          Bradypus tridactylus (Pale-throated three-toed sloth).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Edentata; Bradypodidae; Bradypus.
                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q9BEG1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRINTS; PR01234; TNECROSISFCT.
ProDom; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; IPR000478; TPFam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (FEB-2000) to the EMBL; AJ286828; CAC28514.1; HSSP; P01375; 1A8M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      van Dijk M.A.M., de Jong W.W.;
"Indels indicate that rodents are monophyletic and lagomorphs
their sister group.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q9BEG0
                                                                                                                                                                                                                                                                                                                                                                                                                    Tumor necrosis factor (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q9BEG1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cyclopes didactylus (silky anteater). Eukaryota; Metazoa; Chordata; Craniat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q9BEG0;
                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9354;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tumor necrosis factor (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID-84074;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 InterPro; IPR003636; TNF_abc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
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QRETPRGAEAKPWY 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QRETPEGPEAKPWY 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QRETPEGAEAKPWY 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  217
217 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              217
23753 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Edentata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 93.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 76; DB 6;
Pred. No. 0.00019;
0; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Myrmecophagidae; Cyclopes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                F760E887F6C29EBB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            217 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 217;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
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RESULT 10
Q9BEC5
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                                                                                                                                                                                                                                                                             Query Match
Best Local :
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Best Local :
                                                                                                                                                                                                                                                                 Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE;
PROSITE;
NON_TER
NON_TER
SEQUENCE
                                                                                                     01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Insectivora; Tenrecidae; Tenrecinae; Tenrec.
                                                                                                                                                                                                                                                                                                                                                                                                                                             their sister group.";
Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases
EMBL; AJ286830; CAC28522.1; -
HSSP; P01375; 4TSV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. van Dijk M.A.M., de Jong W.W.; "Indels indicate that rodents are monophyletic and lagomorphs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q9BEE8:
01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Tumor necrosis factor (Fragment).
SEQUENCE FROM N.A. van Dijk M.A.M., d
                                  NCBI_TaxID=94439;
                                                                      Tenrec ecaudatus (tailess tenrec).
                                                                                    TNFA
                                                                                              Tumor necrosis factor (Fragment).
                                                                                                                                            Q9BEC5
                                                                                                                                                       Q9BEC5
                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                SMART; SM00207; TNF; 1.
PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                   PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1.
                                                                                                                                                                                                                                                                                                                                                                                                              Pfam; PF00229; TNF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Erinaceus europaeus (Western European hedgehog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Insectivora; Erinaceidae; Erinaceinae; Erinac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q9BEE8
                                                                                                                                                                                                                                                                                                                                       NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=9365;
                                                                                                                                                                                                                                                                                                                            NON_TER
                                                                                                                                                                                                                 168 QSETPEGAEARPWY 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           170 QRETPEGTEGKPWY 183
                                                                                                                                                                                                                                1 QRETPEGAEAKPWY 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 QRETPEGAEAKPWY 14
                                                                                                                                                                                                                                                               l Similarity
12; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 Similarity
12; Conserv
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                                                                                                                                                                                                                                                                                                               215 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        217
217 AA;
                                                                                                                                                                                                                                                                                                                            215
                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                 Conservative
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de Jong W.W.;
                                                                                                                                                                                                                                                                                                                            215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90.1%;
85.7%;
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23655 MW;
                                                                                                                                                                                                                                                                                                               23696 MW;
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85.7%;
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                                                                                                                                                                                                                                                                             Score 72; I
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Pred. No. 0.
                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                               3E337E7E65F074EA CRC64;
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                                                                                                                                                                                                                                                                 Mismatches
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                                                                                                                                                        217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                215 AA.
                                                                                                                                                                                                                                                                                       DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 6;
                                                                                                                                                        ΑA
                                                                                                                                                                                                                                                                             .00083;
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                                                                                                                                                                                                                                                                                       Length 215;
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                                                                                                                                                                                                                                                                 Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Erinaceus.
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                                                                                                                                                                                                                                                               Gaps
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RESULTANTAL PROPERTY OF THE PR
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RESULT 12
Q91ZL4
ID Q91ZL
AC Q91ZL
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Best Local S
Matches 11
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Best Local
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ProDom; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        their sister group.";
Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ286826; CAC28538.1; -.
HSSP; P01375; 475V.
Q91ZL4
Q91ZL4;
                                                                                                                                                                                                                                                                                                                       NON_TER
NON_TER
SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Indels indicate that rodents are monophyletic and lagomorphs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q27978 PRELIMINARY;
Q27978;
Q1-NOV-1996 (TrEMBLrel. 01,
Q1-NOV-1996 (TrEMBLrel. 01,
Q1-DEC-2001 (TrEMBLrel. 19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Dietz A.B., Neibergs H.L., Kehrli M.E.;
"Development of a Bovine TNFa Single Strand Conformational
Polymorphism.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea Bovidae; Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                      PRINTS; PR01234; TNECROSISFCT.
ProDom; PD002012; TNF abc; 1.
SMART; SM00207; TNF; 1.
PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; U11040; AAA19573.1; HSSP; P01375; 4TSV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (JUN-1994) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-HOLSTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TNFa (Fragment)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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12; Conser
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217 AA;
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                       PRELIMINARY;
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23845 MW;
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92.3%;
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Last annotation update)
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Pred. No. 0.0026;
l; Mismatches
                                                                                                                                                                                                                               Pred. No. 0.0); Mismatches
                                                                                                                                                                                                                                                     Score 68; I
Pred. No. 0
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                         PRT;
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                                                                                                                                                                                                                                                                                                                           BCE0A76D9FFA44BD CRC64;
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                         156
                                                                                                                                                                                                                                                                          DB 6;
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                                                                                                                                                                                                                                                                            Length 104;
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Best Local S
Matches 10
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Best Local Similarity
Matches 10; Conser
                                                                                                                                                                                                                                                                                            ProDom; PD002012; TNF-abc; 1.
SMART; SM00207; TNF; 1.
PROSITE; PS00251; TNF-1; 1.
PROSITE; PS50049; TNF_2; 1.
NON_TER 217 217
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01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
Tumor necrosis factor alpha (Fragment).
Sigmodon hispidus (Hispid cotton rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Blanco J.C., Pletneva L.M., Prince G.A.;
"Sigmodon hispidus cytokines, chemokines and interferons.";
"Submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AF421388; AAL18818.1; -.
Interpro; IPR003636; TNF_abc.
Interpro; IPR003636; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Sigmodontinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              O9ERG6;
01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation updat
Tumor necrosis factor alpha (Fragment).
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ProDom; PD002012; TNF_ab; 1.

PROSITE; PS00251; TNF_1; UNKN
PROSITE; PS50049; TNF_2; 1.

NON_TER 1 1 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Herbst M.M., Schountz T.;

"Cloning of the deer mouse interferon gamma, interleukir necrosis factor genes.";

Submitted (SEP-2000) to the EMBL/GenBank/DDBJ databases EMBL; AF307013; AAG30264.1;

HSSP; P06804; 2TNF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
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                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRINTS; PR01234; TNECROSISFCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Peromyscus maniculatus (Deer mouse)
Eukaryota; Metazoa; Chordata; Crani
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q9ERG6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               102 KETPQGAELKPWY 114
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2 RETPEGAEAKPWY : | | | | | | | | |
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                                                                                                              l Similarity
10; Conserv
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                                                                                                                                                                                                                                                                  217
217 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                 Conservative
                                             14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chordata; Craniata; Vertebrata; Euteleostomi; Rodentia; Sciurognathi; Muridae; Sigmodontinae;
                                                                                                                                                                                                                                                                     23964 MW;
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76.9%;
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76.9%;
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Pred. No. 0.0078;
                                                                                                                                                       Score 65; I
Pred. No. 0.
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                                                                                                                                                                                                                                                                     D6F90C74C0B3021F CRC64;
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                                                                                                                                                                                             DB 11;
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                                                                                                                                                                                             Length 217;
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Best Local Similarity
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ProDom; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
PR0SITE; PS00251; TNF_1; 1.
PR0SITE; PS50049; TNF_2; 1.
NON_TER 235 235
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                                                                                                                                                                                                                                                                                                                                                                              "Actus lemurinus gene for TNF alpha.";
Submitted (OCT-1998) to the EMBL/GenBank/DDBJ databases.
EMBL; AF097329; AAF21304.1; -
HSSP; P01375; 4TSV.
PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
NON_TER 1
                                                                                                                       PRINTS; PR01234; TNECROSISFCT.
ProDom; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Aotus lemurinus (Northern gray-necked night monkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Aotinae; Aotus.
NCBI_TaxID-43147;
                                                                                                                                                                                                                                                           InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Murillo L.A., Hernandez E., Echeverry S.J., Mendez J.A.,
Patarroyo M.E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAY-2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13, 01-OCT-2001 (TrEMBLrel. 18, Tumor necrosis factor alpha
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InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rat
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Search completed: April 4, 2003, 08:42:04 Job time : 22.3226 secs
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                                                                                                                                                              138 AA; 15269 MW;
                                                                                                      77.8%;
nilarity 71.4%;
Conservative
                                                                                                                 Score 63; DB 6; Length 138; Pred. No. 0.014;
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Minimum DB
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3: /cgn2_6/ptodata/1,
4: //gn2_6/ptodata/1,
5: //gn2_6/ptodata/1,
6: //gn2_6/ptodata/1,
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US-07-668-517-12
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US-07-668-517-13
US-07-668-517-13
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US-07-668-517-35
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Sequence 3, Appli
Sequence 16, Appli
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35, Appl
37, Appl
6, Appli
7, Appli
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57, Appli
25, Appl
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MEDIUM TYPE COMPUTER: COMPUTER: COMPUTER: COPERATING SOFTWARE: CURRENT APPI APPLICATIO FILING DAY CLASSIFICA ATTORNEY/AGI NAME: BYI NETERIONE TELEFAN: TELEFAN: TELEFAN: TELEFAN: TELEFAN: TELEFAN: TELEX: 2 SEQUENCE CH SEQUENCE CH SEQUENCE TYPE: ami STRANDEDNIE TYPE: ami STRANDEDNIE MOLECULE TYP FEATURE: MOLECULE TYP FEATURE: NAME/KEY: LOCATION: COTHER INFO OTHER	RESULT 1 US-08-500-860A- Sequence 25, Patent No. 58 Patent INFO APPLICANT: APPLICANT: APPLICANT: APPLICANT: INFO TITLE OF II INUMBER OF ICORRESPONDI ANDERSSESSITEET: COUNTRY: COUNTRY: COUNTRY: COUNTRY:	22266666666666666666666666666666666666
TYPE: FI TYPE: FI TYPE: FI RR : IBM IR RR : TEM IR RR : TEM IR FICATION NUME DATE: GENTION NUME BYRNE, TH BYRNE, TH BYRNE, TH BYRNE, TO SOUTH IN RE: (703) RE: (703) RE: (703) RE: (703) RE: (703) RESC DIARACTEM 17 amin 200797 N EOR SEO DIARACTEM 17 amin 17 amin 200797 N RESC DIARACTEM 17 amin 17 amin 18 200797 N RESC RYPE: pe 17 amin 18 200797 N RYPE: pe 17 Bind1 14: 1 17: Bind1 14: 1 14: 1 15: Bind1 14: 1 15: Bind1 15: Bind1 16: Bind1 16: Bind1 16: Bind1 17: Bind1 17: Bind1 17: Bind1 18: Bind1 19: Bind1	25 91679 91679 DE BASTION: LUCAS, I DE BASTI FRANSEN, VAVENTION: SABLON, VAVENTION: SEQUENCES: SEQUENCES: SEQUENCES: SEQUENCES: NIXON 1100 NORROLL VILLINGINION V	81 100.0 81 100.0
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le MS-DOS MS-DOS, Version #1.25 /500,860A /500,860A N: **Biotin-Gly-Gly is coupled N-terminus of the peptide"	500860A PATRICK TEINS, A PROCESS FOR PREPARING USE AS ACTIVE SUBSTANCES IN PH RHYE P.C.	US-07-668-517-18 US-07-668-517-19 US-07-668-517-20 US-07-668-517-23 US-07-668-517-24 US-07-668-517-25 US-07-668-517-26 US-07-668-517-26 US-07-668-517-27 US-07-668-517-38 US-07-688-517-38 US-07-688-517-38 US-07-688-517-38 US-07-688-517-38 US-07-688-517-38 US-07-694-469A-1 US-07-994-469A-1 US-07-994-469A-3
	NG THEM AND PHARMACEUTICAL COMI	Sequence 18, Appl Sequence 29, Appl Sequence 22, Appl Sequence 23, Appl Sequence 24, Appl Sequence 25, Appl Sequence 26, Appl Sequence 27, Appl Sequence 28, Appl Sequence 30, Appl Sequence 30, Appl Sequence 31, Appl Sequence 31, Appl Sequence 21, Appl Sequence 21, Appl Sequence 21, Appl Sequence 31, Appl Sequence 31, Appl Sequence 31, Appli Sequence 31, Appli Sequence 31, Appli Sequence 31, Appli

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RESULT 3
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US-07-668-517-1
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Sequence 2, Application US/07668517 Patent No. 5262309 GENERAL INFORMATION:
                                                                                                                                                                          Best Local Similarity Matches 14; Conserv
                                                                                                                                                                                                         Query Match
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/
FILING DATE: 19910322
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 147 amino acids
TYPE: AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 25,154
REFERENCE/DOCKET NUMBER:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-8850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Matthew Jacob
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: DisplayWrite CURRENT APPLICATION DATA:
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MEDIUM TYPE: Diskette,
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TITLE OF INVENTION:
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                                                                                                                92
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OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                    NAME/KEY:
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805 Fifteenth Street, N.W., #700
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                                                                                                                                                                          Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Satoshi NAKAMURA et al.
FORTION: No. 5262309el Physiologically Active
VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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Pred. No. 2.5e-06;
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Pred. No. 2.2e-07
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COMPUTER READABLE FORM: MEDIUM TYPE: Diskette,

5.25 inch, 500

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; IDENTIFICATION METHOD: ; OTHER INFORMATION: US-07-668-517-2
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                                                                                                                                                                                                                                Sequence 15,
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                          APPLICANT: Satoshi NAKAMURA et al.
TITLE OF INVENTION: No. 5262309el Physiologically Active
TITLE OF INVENTION: Polypeptide, Recombinant Plasmid, Rec
TITLE OF INVENTION: Cell, Pharmaceutical Composition and
                                                                               CORRESPONDENCE ADDRESS: ADDRESSEE: Wenderoth,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE
                                                                                                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-8850
TELEFAX: 202-371-8856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: Matthew Jacob
REGISTRATION NUMBER: 25,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 1
FILING DATE: 1991032:
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
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COMPUTER READABLE FORM:
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             COUNTRY:
                                STATE:
                                            CITY: Washington
                                                              STREET:
                                                                                                                                                                                                                                                                                                                   93 QRETPEGAEAKPWY 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM CON
OPERATING SYSTEM:
SOFTWARE: Display
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STATE:
                                                                                                                                                                                                                                                                                                                                                 1 QRETPEGAEAKPWY 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                   14;
20005
                                                                                                                                                                                                                 5262309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AMINO ACID
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                             D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          D.C.
                                                                                                                                                                                                                                Application US/07668517
                                                              E: Wenderoth, Lind & Ponack 805 Fifteenth Street, N.W., #700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 148 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       E: Wenderoth, Lind & Ponack
805 Fifteenth Street, N.W., #700
             U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Satoshi NAKAMURA et al.
Satoshi NAKAMURA et al.
VENTION: No. 5262309el Physiologically Active
VENTION: No. 5262309el Physiologically Active
VENTION: Cell, Pharmaceutical Composition and Method of Recovering
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Diskette,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19910322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    single
                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                 Score 81; DB 1;
Pred. No. 2.5e-06;
                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                 Length 148,
                                                                                                                                             Recombinant
                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                             Microorganism
                                                                                                                                                                                                                                                                                                                                                                                0;
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CURRENT APPLICATION DATA:

SOFTWARE: OPERATING SYSTEM: COMPUTER:

IBM Compatible

MS-DOS

APPLICATION NUMBER:

19910322

US/07/668,517

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US-07-668-517-3
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Best Local Similarity
Matches 14; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ENERAL INFORMATION: APPLICANT: Satosh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM COMPULLIAGE OPERATING SYSTEM: MS-DOS SOFTWARE: DisplayWrite CURRENT APPLICATION DATA: US/07/668,517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM: MEDIUM TYPE: Diskette,
ATTORNEY/AGENT INFORMATION:
NAME: Matthew Jacob
REGISTRATION NUMBER: 25,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                      CLASSIFICATION: 530 PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 148 amino acids
TYPE: AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            fITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION: TELEPHONE: 202-371-8850
                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US
FILING DATE: 19910322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: 805 Fifte CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93 ORETPEGAEAKPWY 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS:
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CLASSIFICATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Application US/07668517
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805 Fifteenth Street, N.W., #700
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Satoshi NAKAMURA et al.

VENTION: No. 5262309el Physiologically Active
VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
VENTION: Cell, Pharmaceutical Composition and Method of Recovering
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
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                               25, 154
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Pred. No. 2.5e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 148;
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GENERAL INFORMATION:
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                                                                                                                           INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: DisplayWrite CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette,
COMPUTER: IBM Compatib
OPERATING SYSTEM: MS-D
                                                  FEATURE:
                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                            FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Matthew Jacob
                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: 530 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
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LENGTH: 149 amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                               TOPOLOGY:
                                                                                 STRANDEDNESS:
                                                                                          TYPE: AMINO ACID
                                                                                                  TYPE:
                                                                                                                                                              TELEX
                                                                                                                                                                                                                                           REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 19910322
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
IDENTIFICATION METHOD:
                                   NAME/KEY:
                                                                                                                                                                             TELEFAX: 202-371-8856
                                                                                                                                                                                              TELEPHONE:
                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 149 amino acids
TYPE: AMINO ACID
STRANDEDNESS: single
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TELEFAX: 202-371-8856
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Satoshi NAKAMURA et al.

VENTION: No. 5262309el Physiologically Active
VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
VENTION: Cell, Pharmaceutical Composition and Method of Recovering
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                                                                                                                                                                                                                                                                                                                                                                                                                                        IBM Compatible
                                                                 linear
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                                                                                                                                                                                              202-371-8850
                                                                              single
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                                                                                                                                                                                                                                                                                                                                                                                                                         MS-DOS
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                                                                                                                                                                                                                                           25,154
                                                                                                                                             16:
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Pred. No. 2.5e-06;
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RESULT 8
US-07-668-517-5
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IDENTIFICATION METHOD:
; OTHER INFORMATION:
US-07-668-517-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; OTHER INFORMATION: US-07-668-517-16
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                                                                                                  Query Match
Best Local Similarity luu.
14; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION: APPLICANT: Satosh
                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM Compatible
OPERATING SYSTEM: MS-DOS
SOFTWARE: DisplayWrite
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: 530 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: 202-371-8850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: TITLE OF INVENTION:
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                                                        95 QRETPEGAEAKPWY 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US FILING DATE: 19910322
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                                                                                                                                                                                                                                                                               STRANDEDNESS:
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                                                                                     1 QRETPEGAEAKPWY 14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                Matthew Jacob
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805 Fifteenth Street, N.W., #700
                                                                                                                                                                                                                                                                                                           150 amino acids
                                                                                                                                                                                                                                                                                                                                                                        202-371-8856
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Satoshi NAKAMURA et al.

VENTION: No. 5262309el Physiologically Active
VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
VENTION: Cell, Pharmaceutical Composition and Method of Recovering
                                                                                                                                                                                                                                                                    linear
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                                                                                                                             Score 81; DB 1;
Pred. No. 2.5e-06;
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Pred. No.
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                                                                                                               Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS LENGTH: 150 amino acid
                                                         NUMBER OF SEQUENCES: 5
                                                                                       APPLICANT: Satoshi NAKAMURA et al.
TITLE OF INVENTION: No. 5262309el Physiologically Active
TITLE OF INVENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
TITLE OF INVENTION: Cell, Pharmaceutical Composition and Method of Recovering
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette,
COMPUTER: IBM Compatib
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FILING DATE: 19910322
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
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TITLE OF INVENTION:
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STREET: 805 Fire CITY: Washington
                                                                                                                                                                                                                                                                                              95 QRETPEGAEAKPWY 108
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SOFTWARE: Display
                                          ADDRESSEE:
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                      E: Wenderoth, Lind & Ponack 805 Fifteenth Street, N.W., #700
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805 Fifteenth Street, N.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     150 amino acids
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VENTION: No. 5262309el Physiologically Active
VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
VENTION: Cell, Pharmaceutical Composition and Method of Recovering
EQUENCES: 50
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Pred. No.
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COUNTRY: U.S.A.

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US-07-668-517-8
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; OTHER INFORMATION:
US-07-668-517-6
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Best Local Similarity 100.0%;
Matches 14; Conservative
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SEQUENCE CHARACTERISTICS:
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APPLICATION UMBER: US//
FILING DATE: 19910322
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                  APPLICATION NUMBER: US/07/668,517
FILING DATE: 19910322
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
                                                                                                                        COMPUTER: IBM Compatible OPERATING SYSTEM: MS-DOS SOFTWARE: DisplayWrite CURRENT APPLICATION DATA:
                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
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TITLE OF INVENTION:
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NAME: Matthew Jacob
REGISTRATION NUMBER: 25,
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ADDRESSEE: Wenderoth,
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TELEPHONE: 202-371-8850
TELEFAX: 202-371-8856
TTORNEY/AGENT INFORMATION:
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CITY: Washington
STATE: D.C.
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OPERATING SYSTEM:
                  APPLICATION NUMBER: FILING DATE:
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                                                                                                                                                                                                 5.25 inch,
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Pred. No. 2.5e-06;
); Mismatches 0;
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US-07-668-517-9
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Patent No. 5262309
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                                               INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 150 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 150 amino acid
                                                                                                                                REFERENCE/DOCKET NUMBER: TELECOMMUNICATION INFORMATION: TELEPHONE: 202-371-8850
                                                                                                                                                                                                                                                             CLASSIFICATION: 530 PRIOR APPLICATION DATA:
                                                                                                                                                                                             FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Matthew Jacob
                                                                                                                                                                                                                                                                                                                             SOFTWARE: DisplayWrite CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
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                TYPE: AMINO ACID
STRANDEDNESS: Sil
                                                                                                                 TELEFAX:
                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: FILING DATE: 19910:
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TOPOLOGY:
                                                                                                                                                                                 REGISTRATION NUMBER:
                                                                                                                                                                                                                                                 APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM: MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
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IDENTIFICATION METHOD:
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805 Fifteenth Street, N.W., #700
                                                 150 amino acids
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                                                                                                                  202-371-8856
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Satoshi NAKAMURA et al.
VENTION: No. 5262309el Physiologically Active
VENTION: Recombinant Microorganism
VENTION: Cell, Pharmaceutical Composition and Method of Recovering
                                                                                                                                                                                                                                                                                                                                                                                                                                              U.S.A.
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No. 2.5e-06;
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Query Match
Best Local Similarity
""tches 14; Conserv
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US-07-668-517-10
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Patent No. 526230
                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: DisplayWrite CURRENT APPLICATION DATA: APPLICATION NUMBER: US.
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MEDIUM TYPE: Diskette, 5.25 inch, 500
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TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                      TELEPHONE: 202-371-8850
                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 530 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
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NAME: Matthew Jacob
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 95
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                                                                                                                                                              LOCATION:
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OTHER INFORMATION:
                                                                                                                                                                              NAME/KEY:
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                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 25,154
                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
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               QRETPEGAEAKPWY 14
QRETPEGAEAKPWY 108
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805 Fifteenth Street, N.W., #700
                                                                                                                                                                                                                                                                                                          202-371-8856
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VENTION: No. 5262309el Physiologically Active
VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
VENTION: Cell, Pharmaceutical Composition and Method of Recovering
                                                         Conservative
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                                                                  100.0%; Score 81; DB 1; 100.0%; Pred. No. 2.5e-06;
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                                                       Mismatches
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US-07-668-517-12
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US-07-668-517-11
                                                                                                                                                          Sequence 12, Application US/07668517 Patent No. 5262309
                                                                                                                                                                                                                                                                                                                                     Matches
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                                                                                                                                          GENERAL INFORMATION:
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SEQUENCE CHARACTERISTICS:
LENGTH: 150 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/
FILING DATE: 19910322
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
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                                                                APPLICANT: Satoshi NAKAMURA et al.

TITLE OF INVENTION: No. 5262309el Physiologically Active
TITLE OF INVENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
TITLE OF INVENTION: Cell, Pharmaceutical Composition and Method of Recovering
                                  CORRESPONDENCE ADDRESS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION: NAME: Matthew Jacob
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IDENTIFICATION METHOD:
OTHER INFORMATION:
                 ADDRESSEE:
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REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE: Diskette,
                                                                                                                                                                                                                                                                                                   1 QRETPEGAEAKPWY
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                                                  OF SEQUENCES:
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E: Wenderoth, Lind & Ponack 805 Fifteenth Street, N.W., #700
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805 Fifteenth Street, N.W., #700
                                                                                                                                                                                                                                                                                                                                     Conservative
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VENTION: No. 5262309el Physiologically Active
VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
VENTION: Cell, Pharmaceutical Composition and Method of Recovering
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IBM Compatible
                   Wenderoth,
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Pred. No. 2.5e-06;
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COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 5.25 inch, 500 Kb

COUNTRY: U ZIP: 20005

U.S.A.

CITY: Washington

D.C.

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US-07-668-517-13
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; IDENTIFICATION METHOD:
; OTHER INFORMATION:
US-07-668-517-12
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INFORMATION FOR SEQ ID NO: 12
SEQUENCE CHARACTERISTICS:
LENGTH: 150 amino acids
TYPE: AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 100.0%; Score 81; DB 1; Best Local Similarity 100.0%; Pred. No. 2.5e-06; Matches 14; Conservative 0; Mismatches 0;
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OPERATING SYSTEM: MS-DOS
SOFTWARE: DisplayWrite
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/
FILING DATE: 19910322
                                                                                                                                                                                                                                                                                                           APPLICANT: Satoshi I
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
     COMPUTER: IBM Compatible
OPERATING SYSTEM: MS-DOS
SOFTWARE: DisplayWrite
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/668,517
FILING DATE: 19910322
                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette,
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NAME: Matthew Jacob
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PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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CITY: Washington
STATE: D.C.
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CLASSIFICATION:
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805 Fifteenth Street, N.W., #700
                                                                                                                                                                                                                                                                                              Satoshi NAKAMURA et al.
WENTION: No. 5262309el Physiologically Active
WENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
WENTION: Cell, Pharmaceutical Composition and Method of Recovering
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Query Match
Best Local Similarity
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Search completed: April 4, 2003, 08:43:41
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SEQUENCE CHARACTERISTICS:
LENGTH: 150 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY AGENT INFORMATION:

NAME: Matthew Jacob
REGISTRATION NUMBER: 25,154
REFERENCE/DOCKET NUMBER:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-8850
TELEFAX: 202-371-8856
                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                    LOCATION:
IDENTIFICATION METHOD:
OTHER INFORMATION:
                                                                 95 QRETPEGAEAKPWY 108
                                                                                                                                                                                                                                                                                                                         LENGTH: 150 aminc TYPE: AMINO ACID STRANDEDNESS: sin
                                                                                    1 QRETPEGAEAKPWY 14
                                                                                                                                                                                                                                                                         NAME/KEY:
                                                                                                                                                                                                                                                                                                          TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                 TELEX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                          linear
                                                                                                                                                                                                                                                                                                                         single
                                                                                                                                 100.0%; Score 81; DB 1; Length 150; 100.0%; Pred. No. 2.5e-06; tive 0; Mismatches 0; Indels
                                                                                                                                  0,
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Gaps

0,

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Result
No.
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Maximum
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Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Perfect score:
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            on:
                                                                                                                                                                                                                                                                                                                                                                                               Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                seq length: 0 seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          248812 seqs, 61136040 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gapop 10.0 , Gapext 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               April 4, 2003, 08:42:11; Search time 8.80645 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-779-703-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Published_Applications_AA: *
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*
/cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*
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/cgn2_6/ptodata/2/pubpaa/US09_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/US09_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/US10_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/US10_PUBCOMB.pep:*
/cgn2_6/ptodata/2/pubpaa/US60_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/US60_NEW_PUB.pep:*
                                                                                                                                                                                                                                                                                                                           Length
        GenCore version 5.1.4_p5_4578 (c) 1993 - 2003 Compugen Ltd.
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                                                                   100110
US-09-756 301A-1
US-09-927-703-1
US-09-927-703-1
US-09-854-280-19
US-09-766-535A-1
US-09-766-535A-1
US-09-766-161A-1
US-10-010-229-1
2 US-10-010-229-1
2 US-10-043-450-1
2 US-10-043-450-1
2 US-10-043-450-1
0 US-09-787-789-2
0 US-09-981-289-2
US-10-145-014-3
0 US-09-981-289-2
US-10-145-014-3
                                                                                                                                                                                                                          0 US-09-877-156-25
2 US-10-116-378-28
US-09-779-050A-24
US-09-903-327A-7
US-10-043-432-1
                                                                                                                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (without alignments)
97.191 Million cell updates/sec
                                                          Sequence 24, Appli
Sequence 7, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 19, Appli
Sequence 13, Appli
Sequence 13, Appli
Sequence 14, Appli
Sequence 1, Appli
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                     Sequence
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                                                                                                                                                                                                                                                                         25, Appl
28, Appl
                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
APPLICANT: Catherine Tribouley
TITLE OF INVENTION: NEW MEMBERS OF THE AND THER FAMILIES
FILE REFERENCE: 1408.003/200130.439C1
CURRENT APPLICATION NUMBER: 45/09/877,156
CURRENT FILING DATE: 2001-06-08
PRIOR APPLICATION NUMBER: US 09/286,529
PRIOR FILING DATE: 1998-04-05
NUMBER OF SEQ ID NOS: 25
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 25
LENGTH: 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 1
US-09-877-156-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Sequence 25, Application US/09877156
; Patent No. US20020055625A1
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	ALIGNMENTS			
340,	12 US-10-062-254-340	624	50.	45
14	12 US-10-012-452-14	235	60.	44
Sequence 7, Appl	10 US-09-899-059-7	235	49 60.5	43
7,	US-09-246	235	60.	42
7,	9 US-09-131-237-7	235	60.	41
Ф 5	US-09-911-777	104	66.	40
Sequence 6, Appli	ď	268	80.	39
8, 2		235	80.	38
40,		151	80.	37
11,	9 US-09-903-327A-11	597	100.	36
Sequence 10, App		233	100.	35
<u>ა</u>		233	100.	34 .
ω	10 US-09-899-059-3	233		S S
ω	US-09-929-493-	233	100.	32
ω	c	233	100.	31
ω	US-09-246-129B-	233		30
14,	10 US-09-840-707A-14	233	100.	29
4.	a	233		28
Sequence 5, Appl	US-09-879-919-	233		27
ত ড	US-09-1	233	81 100.0	26
42,	us-10-151-882-	233	100.	25
9,	US-10-174-654-	233		24
ω `	9 US-09-131-237-3	233	100.	23
e 22,	US-10-145-014-	233	ш	22
ω,	US-1(233		21
Sequence 5, Appli	8 US-08-971-317A-5	233	81 100.0	20

ALIGNMENTS

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RESULT 2
US-10-116-378-28
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; TYPE: PRT
; ORGANISM: Homo sapien
US-09-877-156-25
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                                                                                                                               ; GENERAL INFORMATION:
                                                                                                                                            Sequence 28, Application US/10116378 Patent No. US20020150993A1
                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                    Best Local Similarity
APPLICANT: Marsters, Scot A.
APPLICANT: Pittl, Robert M.
APPLICANT: Wood, William
TITLE OF INVENTION: NOVEL TUMOR NECROSIS FACTOR RECEPTOR HOMOLOG AND
TITLE OF INVENTION: NUCLEIC
                                                                             APPLICANT: Ashkenazi, Avi J.
APPLICANT: Goddard, Audrey
APPLICANT: Gurney, Austin
                                                                                                                                                                                                                                        95 ORETPEGAEAKPWY
                                                                                                                                                                                                                                                         1 QRETPEGAEAKPWY 14
                                                                                                                                                                                                                                                                                                      14;
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                                                                                                                                                                                                                                                                                                                    100.0%;
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Pred. No. 6.4e-06;
                                                                                                                                                                                                                                                                                                      Mismatches
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CURRENT APPLICATION NUMBER: US/10/116,378
CURRENT FILING DATE: 2002-04-04
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 09/247,225
PRIOR FILING DATE: EARLIER FILING DATE: 1999-02-09
PRIOR PILING DATE: EARLIER FILING DATE: 1999-02-09
PRIOR FILING DATE: EARLIER APPLICATION NUMBER: US 60/074,C
PRIOR FILING DATE: EARLIER FILING DATE: 1998-02-09
NUMBER OF SEQ ID NOS: 31
SEQ ID NO 28
LENGTH: 150
TYPE: PRT
ORGANISM: Homo sapiens
US-10-116-378-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; TYPE: PRT ; ORGANISM: Homo sapiens US-09-779-050A-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20
                                                                                                                                                                                                                                                                                                                         US-09-903-327A-7
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US:09-779-050A-24
                                                                                                                                                                                                                      Sequence 7, Application US/09903327A Patent No. US20020164333A1 GENERAL INFORMATION:
APPLICANT: Nemerow, Glen R.
APPLICANT: Li, Erguang
SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn version 3.0 SEQ ID NO 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: BOYLE, W
APPLICANT: HSU, HA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 24, Application US/09779050A Patent No. US20020160416A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
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Best Local Similarity
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                                                      CURRENT APPLICATION NUMBER: US/09/903,327A
CURRENT FILING DATE: 2001-07-10
PRIOR APPLICATION NUMBER: 09/613,017
PRIOR FILING DATE: 2000-07-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/09/779,050A
CURRENT FILING DATE: 2001-02-12
PRIOR APPLICATION NUMBER: 60/181,800
PRIOR FILING DATE: 2000-02-11
                                                                                                                 APPLICANT: L1, Erguang
TITLE OF INVENTION: BIFUNCTIONAL MOLECULES AND VECTORS COMPLEXED THEREWITH FOR TARGET
TITLE OF INVENTION: GENE
TITLE OF INVENTION: DELIVERY
FILE REFERENCE: 22908-1228
FILE REFERENCE: 22908-1228
                                       NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQ ID NOS: 52
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: HSU, HAILING
TITLE OF INVENTION: RECEPTOR FROM TNF FAMILY
FILE REFERENCE: A-570B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                             97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
hes 14; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                1 QRETPEGAEAKPWY 14
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Pred. No. 6.5e-06;
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Pred. No. 6.4e-06;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 152;
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; NAME/KEY: PEPTIDE ; LOCATION: (0)...(0) ; LOCATION: (0)...(0) ; OTHER INFORMATION: Tumor necrosis factor-alpha (TNF alpha, mature ; OTHER INFORMATION: peptide) US-09-903-327A-7
                                                                         US-10-043-432-1
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Query Match
Best Local Similarity 100.
Matches 14; Conservative
                                                                                                                                   SOFTWARE: FastSEQ
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION
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Best Local :
                                                                                                                                                                   NUMBER OF SEQ ID NOS:
                                                                                                                                                                                  PRIOR APPLICATION NUMBER: U.S. PRIOR FILING DATE: 1991-03-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/10/043,432
CURRENT FILING DATE: 2002-01-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: U.S. 09/756,398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT FILING DATE: 2002-01-10
PRIOR APPLICATION NUMBER: 09/927,703
PRIOR FILING DATE: 2001-08-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: Anti-TNF Antibodies and TITLE OF INVENTION: Human Tumor Necrosis Farile Reference: 0975.1005-013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Knight, David
APPLICANT: Siegel, Scott
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Daddona, Peter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM:
                                                                                      ORGANISM: Homo sapiens
                                                                                                     TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR FILING DATE: 1995-12-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: U.
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                                                                                                                      LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
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                                                                                                                                                                                                                                APPLICATION NUMBER: U.S.
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                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: U.S. FILING DATE: 1993-01-29
                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: U.S
                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 1994-02-04
                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                  FILING DATE: 1992-09-11
                                                                                                                                                                                                                                                               APPLICATION NUMBER: U.S.
                                                                                                                                                                                                                                                                            FILING DATE: 1993-02-02
                                                                                                                                                                                                                                                                                                                                            FILING DATE: 1994-02-04
                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: U.S.
                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: U.
                                                                                                                      157
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Knight, David M.
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                                                                                                                                                     Windows
                     100.0%;
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                                                                                                                                                   Version 4.0
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                        Score 81; I
Pred. No. 6
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Pred. No. 6.7e-06;
           Mismatches
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                                     DB 9;
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US-09-756-301A-1
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                                                            APPLICANT: Le, Junming
APPLICANT: Vilcek, Jan
APPLICANT: Daddona, Peter
APPLICANT: Ghrayeb, John
APPLICANT: Knight, David M.
APPLICANT: Siegel, Scott
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SEQ ID NO 1
LENGTH: 157
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                        GENERAL INFORMATION:
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Patent No. US20020022720A1
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APPLICANT: V11
APPLICANT: Dad
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PRIOR FILING DATE: 1998-08-12
PRIOR APPLICATION NUMBER: U.S. 08/570,674
PRIOR FILING DATE: 1995-12-11
PRIOR APPLICATION NUMBER: U.S. 08/324,799
PRIOR FILING DATE: 1994-10-18
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PRIOR FILING DATE: 1994-02-04
PRIOR APPLICATION NUMBER: U.S
ITLE OF INVENTION: Anti-TNF Antibodies and Peptides of ITLE OF INVENTION: Human Tumor Necrosis Factor TLE REFERENCE: 0975.1005-013
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ITLE OF INVENTION: Anti-TNF Antibodies and Peptides of INVENTION: Human Tumor Necrosis Factor
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Ghrayeb, John
Knight, David M.
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; SEQ ID NO 19; LENGTH: 157; TYPE: PRT; ORGANISM: Homo sapiens US-09-854-280-19
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SEQ ID NO 1
LENGTH: 157
TYPE: PRT
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Query Match
Best Local Similarity
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APPLICANT:
                                                                                                                                             PRIOR APPLICATION NUMBER: US 60/113,621
PRIOR FILING DATE: 1998-12-23
NUMBER OF SEQ ID NOS: 26
                                                                                                                                                                                                                                                                                                                     APPLICANT: Wood, William I.
TITLE OF INVENTION: IL-17 HOMOLOGOUS POLYPEPTIDES AND THERAPEUTIC USES THEREOF
FILE REFERENCE: P1381R1C2
                                                                                                                                                                                                        PRIOR FILING DATE:
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PRIOR APPLICATION NUMBER: US 60/085,579
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PRIOR FILING DATE: 1994-10-18
PRIOR APPLICATION NUMBER: U.S. 08/192,102
PRIOR FILING DATE: 1994-02-04
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PRIOR FILING DATE: 1994-02-04
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100.0%;
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Score 81; DB 10;
Pred. No. 6.7e-06;
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                 Length 157;
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; LENGTH: 157
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-934-465-13
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US-09-766-535A-1
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Best Local Similarity
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APPLICANT: AShkenazi, Avi J.
TITLE OF INVENTION: APO-2 LIGAND
FILE REFERENCE: 11669.22USO3
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Patent No. US20020102233A1
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Patent No. US20020106372A1
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PRIOR APPLICATION NUMBER: U.S
PRIOR FILING DATE: 1994-02-04
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PRIOR FILING DATE: 1995-12-11
PRIOR APPLICATION NUMBER: U.S. 08/324,799
PRIOR FILING DATE: 1994-10-18
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CURRENT FILING DATE: 2001-08-21
PRIOR APPLICATION NUMBER: 08/584,031
PRIOR FILING DATE: 1996-01-09
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PRIOR FILING DATE: 1998-08-12
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                                                                                                                     FILING DATE: 1993-01-29
                                                                                                                                       APPLICATION NUMBER: U.
                                                                                                                                                       APPLICATION NUMBER: U.S FILING DATE: 1994-02-04
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                                                                 APPLICATION NUMBER: U.S. 07/943,852
                                                                                                   APPLICATION NUMBER: U.S.
                                 APPLICATION NUMBER: U.S.
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Ghrayeb, John
Knight, David M.
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07/670,827
                                07/853,606
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RESULT 12
US-09-756-161A-1
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; SOFTWARE: FASTSEQ for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 157
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-766-535A-1
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SEQ ID NO 19
LENGTH: 157
                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                Patent No. US20020132307A1
                                                                                                                                                                                                                              Sequence 1,
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                           Matches 14;
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                           APPLICANT: Le, Junming
APPLICANT: Vilcek, Jan
APPLICANT: Vilcek, Jan
APPLICANT: Daddona, Peter
APPLICANT: Ghrayeb, John
APPLICANT: Knight, David M.
APPLICANT: Siegel, Scott
TITLE OF INVENTION: Anti-TNF Antibodies and Peptides
TITLE OF INVENTION: Human Tumor Necrosis Factor
FILE REFERENCE: 9975.1005-007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
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CURRENT APPLICATION NUMBER: US/09/756,161A CURRENT FILING DATE: 2001-01-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/854,208
CURRENT FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: US/09/311,832
PRIOR FILING DATE: 1999-05-14
PRIOR APPLICATION NUMBER: US 60/085,579
PRIOR FILING DATE: 1998-05-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: WOOD, WIILIAM I.
TITLE OF INVENTION: II-17 HOMOLOGOUS POLYPEPTIDES AND THERAPEUTIC USES
TITLE OF INVENTION: THEREOF
FILE REFERENCE: P1381-R1
CHEPEREN PARTICLE.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Chen, Jian
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
                                                                                                                                                                                                                                                                                                                       102 QRETPEGAEAKPWY 115
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Pred. No. 6
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Pred. No.
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6.7e-06;
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6.7e-06;
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; LENGTH: 157
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-756-161A-1
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US-10-010-229-1
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-010-229-1
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Best Local S
Matches 14
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SEQ ID NO 1
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                                                                                                                                                                                                                           APPLICANT: Knight, David M.
APPLICANT: Slegel, Scott
TITLE OF INVENTION: Anti-TNF Antibodies and Peptides
TITLE OF INVENTION: Human Tumor Necrosis Factor
FILE REFERENCE: 0975.1005-013
CURRENT APPLICATION NUMBER: US/10/010,229
CURRENT FILING DATE: 2001-12-07
PRIOR APPLICATION NUMBER: US/09/927,703
PRIOR FILING DATE: 2001-08-10
NUMBER OF SEQ ID NOS: 19
                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Le, Junming APPLICANT: Vilcek, Jar APPLICANT: Daddona, Pe APPLICANT: Ghrayeb, Jc
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PRIOR FILING DATE: 1992-09-11
PRIOR APPLICATION NUMBER: U.S. 07/853,606
PRIOR FILING DATE: 1992-03-18
PRIOR APPLICATION NUMBER: U.S.07/670,827
PRIOR FILING DATE: 1991-03-18
NUMBER: 1991-03-18
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PRIOR FILING DATE: 1994-10-18
PRIOR APPLICATION NUMBER: U.S
PRIOR FILING DATE: 1994-02-04
PRIOR APPLICATION NUMBER: U.S
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PRIOR APPLICATION NUMBER: U.
 102
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                                                    Local Similarity 100.0%; Local Similarity 100.0%; res 14; Conservative 0
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nes 14; Conserv
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                QRETPEGAEAKPWY 14
QRETPEGAEAKPWY 115
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Ghrayeb, John
Knight, David M.
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Pred. No.
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                                                                            Score 81; I
Pred. No. 6.
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6.7e-06;
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US-10-044-534-1
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PRIOR FILING DATE: 2001-08-10
PRIOR APPLICATION NUMBER: U.S. 09/756,398
PRIOR FILING DATE: 2001-01-08
PRIOR APPLICATION NUMBER: U.S. 09/133,119
PRIOR FILING DATE: 1998-08-12
PRIOR APPLICATION NUMBER: U.S. 08/570,674
PRIOR FILING DATE: 1995-12-11
PRIOR FILING DATE: 1995-12-11
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US-10-043-450-1
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SOFTWARE: FastSEQ for Windows
SEQ ID NO 1
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Best Local Similarity
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APPLICANT: Le, Junming
APPLICANT: Vilcek, Jan
APPLICANT: Vilcek, Jan
APPLICANT: Daddona, Peter
APPLICANT: Ghrayeb, John
APPLICANT: Knight, David M.
APPLICANT: Siegel, Scott
TITLE OF INVENTION: Antl-TNF Antibodies and Peptides
TITLE OF INVENTION: Human Tumor Necrosis Factor
FILE REFERENCE: 0975.1005-013
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APPLICANT: V111
APPLICANT: Ghrz-
APPLICANT: Kni:
APPLICANT: Kni:
APPLICANT: Sie
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APPLICANT: Ghrayeb, John
APPLICANT: Knight, David M.
APPLICANT: Siegel, Scott
TITLE OF INVENTION: Anti-TNF Antibodies and Peptides
TITLE OF INVENTION: Human Tumor Necrosis Factor
FILE REFERENCE: 0975.1005-013
CURRENT APPLICATION NUMBER: US/10/043,450
CURRENT FILING DATE: 2002-01-10
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PRIOR APPLICATION NUMBER: U.S.
PRIOR FILING DATE: 1991-03-18
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PRIOR TILING DATE: 1993-02-02
PRIOR APPLICATION NUMBER: U.S.
PRIOR FILING DATE: 1992-09-11
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Pred. No. 6.
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PRIOR FILING DATE: 1994-10-18
PRIOR APPLICATION NUMBER: U.S. 08/192,102
PRIOR FILING DATE: 1994-02-04
PRIOR APPLICATION NUMBER: U.S. 08/192,861
PRIOR FILING DATE: 1994-02-04
PRIOR APPLICATION NUMBER: U.S. 08/192,093
PRIOR FILING DATE: 1994-02-04
PRIOR APPLICATION NUMBER: U.S. 08/010,406
PRIOR FILING DATE: 1993-01-29
PRIOR FILING DATE: 1993-02-02
PRIOR APPLICATION NUMBER: U.S. 08/013,413
PRIOR FILING DATE: 1993-02-02
PRIOR APPLICATION NUMBER: U.S. 07/943,852
PRIOR FILING DATE: 1992-09-11
PRIOR APPLICATION NUMBER: U.S. 07/853,606
PRIOR APPLICATION NUMBER: U.S. 07/670,827
PRIOR APPLICATION NUMBER: U.S. 07/670,827
PRIOR APPLICATION NUMBER: U.S. 07/670,827
PRIOR FILING DATE: 1991-03-18
PRIOR APPLICATION NUMBER: U.S. 07/670,827
PRIOR FILING DATE: 1991-03-18
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Search completed: April 4, 2003, 09:06:20 Job time: 11.8065 secs
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PRIOR FILLING DATE: 2001-08-10
PRIOR APPLICATION NUMBER: U.S. 09/756,398
PRIOR FILLING DATE: 2001-01-08
PRIOR APPLICATION NUMBER: U.S. 09/133,119
PRIOR FILLING DATE: 1998-08-12
PRIOR APPLICATION NUMBER: U.S. 08/570,674
PRIOR FILLING DATE: 1995-12-11
PRIOR FILLING DATE: 1995-12-11
PRIOR FILLING DATE: 1995-12-11
PRIOR FILLING DATE: 1904-10-18
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                                Tumor necrosis fac
Sequence of tumour
Rat TNF-alpha mute
Murine TNF-alpha m
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mTNF-alpha tip. S
Tumour necrosis fa
Murine TNF derived
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t being printed,
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Mouse-alpha. Mus
equence of tumour
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Polypeptide with a		ب	150	77.4	65	٥.
New polype	1 AAR05286	11	150	77.4	65	
Anti-tumour ac		_	150	77.4	65	
Sequence of		9	150	77.4	65	
Sequence of	AAP81066	ø	150	77.4	65	
TNF analogue.		9	150	77.4	65	
TNF analogue.		9	150	77.4	65	
Modified tumour		Ģ	150	77.4	65	
TNF-derived polype	AAP71245	œ	150	77.4	65	
Synthetic tumour		8	150	77.4	65	
Antitumour	1 AAR05612	L	149	77.4	65	
Polypeptid	AAP916	ш	149	77.4	65	
C-terminal	2 AAY71982	2	147	77.4	65	
Human tumour	2 AAB67245	2	147	77.4	65	
Sequence of	AAP81853	٠	147	77.4	65	
Sequence of	AAP82043	9	145	77.4	65	
Tumour necrosis	6 AAR72456	—	140	77.4	65	
Tumour necrosi	1 AAR05513		25	77.4	65	
Tumour necrosis	1 AAY82196	2	17	77.4	65	
hTNF-alpha		ш	17	77.4	65	
		سر	17	77.4	65	
Tumour necrosis		N	14	77.4	65	
Murine TNF	Н	N	19		67	
Polypeptid	0 AAP91633	_	157	82.1	69	
Amino acid	1	N	155	85.7	72	
۳.	Ŋ	N	268	100.0	84	
	3 AAU10546	N	235	100.0	84	
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ß		_	235	•	84	
	11 AAR05996	ب	235	•	84	
Rat tumour		_	235	٠	84	
Sequence of	AAP60530	7	235	100.0	84	
Human tumour	10 AAP90424		233		84	
Tumor necrosis	Þ	8	170	100.0	84	
Non-human	4 AAR38077	_	157	100.0	84	

ALIGNMENTS

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RESULT 1
AAY82195
ID AAY8
XX AAY8
XX AAY8
AC AAY8
DT O8-J
XX Tumc
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                                                                                                                           WPI; 2000-282855/24
                                                                                                                                                                                                        Lucas R,
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proinflammatory; pulmonary oedema.
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                                                                                                                                                                                                                                                                                     (INNO-) INNOGENETICS NV.
                                                                                                                                                                                                            De Baetselier P,
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98EP-0870198.
98EP-0870222.
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Use of peptides derived from human or mouse tissue necrosis factor-alpha (TNF-alpha), and comprising 7-17 contiguous amino acids,

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RESULT 2
AAR60232
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Best Local
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                                  The TNF-alpha tip peptides given in AAR60232-42 were modified with N-terminal biotin-Gly-Gly moieties and were used to demonstrate that the tip region of mouse and human TNF-alpha contains the trypanosomal and lectin-like activities of the molecule and is
                                                                                                                                          New tumour necrosis factor -alpha muteins, antibodies and antisense peptide(s) - used in the treatment of diseases and conditions associated with the in vivo activities of TNF-A e
                                                                                                                                                                                                                                                                                                        02-FEB-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TNF-alpha; tumor necrosis factor-alpha; tip peptide; mutein; cancer; sepsis; inflammation; cytokine; metastasis; lectin; adhesion; mutagenesis; trypanoside.
Sequence
                                                                                                    Disclosure; Page 61; 132pp; English
                                                                                                                               cancer, sepsis, inflammation,
                                                                                                                                                                                                 WPI; 1994-279746/34
                                                                                                                                                                                                                           De Baetselier P,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             for preventing
                          involved in TNF-induced lethal shock
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Pred. No. 1.2e-06;
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18-SEP-1998;
21-OCT-1998;
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                                                                                                               pharmaceutical compositions for treating odema, especially pulmonary oedema. The peptides are non-toxic, whilst retaining the oedema resorption-inducing capacity as TNF. The present sequence represents a specifically claimed TNF-alpha circularised peptide from the present
                                                                                                                                                         The present invention describes the use of peptides comprising a chain of 7-17 contiguous amino acids derived from the Ser100-Glu116 region of human tumour necrosis factor-alpha (TNF-alpha), or Ser99-Glu115 region of mouse TNF-alpha, for treating oedema. The peptides form
                                                                                  Sequence
                                                                                                                                                                                                              Claim 8; Page 16; 26pp; English
                                                                                                                                                                                                                                              Use of peptides derived from human or mouse tissue necrosis factor-alpha (TNF-alpha), and comprising 7-17 contiguous amino acids,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tumour necrosis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
                                                                                                                                                                                                                                                                                                 Þ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17
                                                                                                                                                                                                                                                                                                 Pugin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     derived circularised
                                                   Score 84;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 84;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A
                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                 J,
                                                                                                                                                                                                                                                                                                 Bloc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; DB 15;
. 1.5e-06;
ches 0;
                                                 1.5e-06;
                                                             DB
                                                                                                                                                                                                                                                                                                 ۸,
                                                                                                                                                                                                                                                                                                  Fransen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mouse; oedema;
                                                           Length 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    peptide #2
                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
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RESULT 4
AAY82198
ID AAY8

AAY82198 standard; peptide;

19

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RESULT
AAP7055
ID AAP
XX
AC AU
XX
DT 2:
XX
DT 2:
XX
T
XX
XX
Y
XX
XX
Y
XX
XX
Y
PN
XX
XX
Y
PF
XX
XX
                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                 The present invention describes the use of peptides comprising a chain of 7-17 contiguous amino acids derived from the Ser100-Glul16 region of human tumour necrosis factor-alpha (TNF-alpha), or Ser99-Glul15 region of mouse TNF-alpha, for treating oedema. The peptides form pharmaceutical compositions for treating oedema especially pulmonary oedema. The peptides are non-toxic, whilst retaining the oedema resorption-inducing capacity as TNF. The present sequence represents a murine TNF derived peptide used in an example from the present
              06-DEC-1985;
                                     18-JUN-1987.
                                                                                    TNF; antitumor
                                                                                                          Tumor necrosis factor.
                                                                                                                                  26-FEB-1991
                                                                                                                                                         AAP70557;
                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Use of peptides derived from human or mouse tissue necrosis factor-alpha (TNF-alpha), and comprising 7-17 contiguous amino acids, for preventing or treating oedema
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-AUG-1998;
18-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            proinflammatory; pulmonary oedema.
                                                                                                                                                                               AAP70557 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 1; Page 7; 26pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2000-282855/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200009149-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tumour necrosis factor alpha; TNF-alpha; human; mouse; oedema;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Murine TNF derived peptide long tip peptide 99-115 (LTip).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lucas R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (INNO-) INNOGENETICS NV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAY82198;
                                                                                                                                                                                                                                                     1 PKDTPEGAELKPWY 14
                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                          PKDTPEGAELKPWY 18
                                                                                                                                                                                                                                                                                       l Similarity
14; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Þ
                                                                                                                                                                                                                                                                                                                                     19
                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Baetselier P,
                                                                                                                                                                                                                                                                                                                                     Α
Α
Α,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98EP-0870180.
98EP-0870198.
98EP-0870222.
              85JP-0275392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-EP05806
                                                                                                                                                                              protein;
                                                                                                                                                                                                                                                                                                100.0%;
                                                                                                                                                                                154
                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pugin J,
                                                                                                                                                                                                                                                                                               Score 84; DB 21;
Pred. No. 1.6e-06;
                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bloc A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fransen
                                                                                                                                                                                                                                                                                                           Length 19;
                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                    0;
Query Match
Best Local Similarity
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RESULT 6
AAP60526
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local (
                                                                                                                                                                                                 (BIOJ ) BIOGEN NV.
(FIER/) FIERS W C.
(ALLE/) ALLET B.
(BIOG-) BIOGEN INC.
                                                                                                                                                                                                                                                        09-OCT-1985;
21-DEC-1984;
09-OCT-1986;
                 TNF-like polypeptides and compsns. are produced by the fermentation of host cells transformed with at least one DNA sequence which codes for a mammalian TNF-like polypeptide operatively linked to an expression control sequence in the transformed host.
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The sequence encodes tumor necrosis factor which is an antitumor agent and a lymphokine. The sequence may optionally have up to additional AA as the N-terminal.
                                                                                                Mammalian tumour necrosis factors - pro-karyotic hosts transformed with
                                                                           Claim 12;
                                                                                                                                WPI; 1986-182891/28.
N-PSDB; AAN60440.
                                                                                                                                                                 Fiers WC, Fransen LM,
VanDerHeyden J, Allet
                                                                                                                                                                                                                                                                                                     19-DEC-1985;
                                                                                                                                                                                                                                                                                                                          03-JUL-1986
                                                                                                                                                                                                                                                                                                                                               WO8603751-A
                                                                                                                                                                                                                                                                                                                                                                    Anticancer agent; antitumour; antimalarial; tumour necrosis factor.
                                                                                                                                                                                                                                                                                                                                                                                          Sequence of tumour necrosis factor (TNF).
                                                                                                                                                                                                                                                                                                                                                                                                                07-AUG-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                      AAP60526;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAP60526 standard; Protein; 156 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            See also AAP70558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Page 12; 12pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Anticancer factor - expressed by specified amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (TANA ) TANABE SEIYAKU KK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-DEC-1985;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99 PKDTPEGAELKPWY 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PKDTPEGAELKPWY 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                          Page 66-67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      154 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                        85US-0785847.
84US-0684595.
86WO-US02133.
                                                                                                                                                                                                                                                                                                    85WO-EP00721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           85JP-0275392.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
                                                                         93pp; English.
                                                                                                                                                                 ₿,
                                                                                                                                                                 Tavernier JHL,
3, Washima EH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 84; DB 8;
Pred. No. 1.4e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                 produced by recombinant
                                                                                                                                                                            Marmenout ALM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                 culturing
DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 154;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16
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100.0%;

Score Pred.

84; No.

DB 7; 1.4e-05;

Length 156;

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RESULT 7
AAR41861
ID AAR4
XX
AC AAR4
XZ
DT 29-M
XX
DE Rat
XX
KW Tumc
KW TNF
                                                                                                                     FFFFX
                                                                                                                                                          **********
                                                                                                                                                                                                                              77777
                                                                                                                                                                                                                                                                                          MENTER TO
                                                                                                                                                                                                                                                                                                                                              2222
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
Producing modified tumour necrosis factor alpha - useful for
                WPI; 1993-303462/38
                                                              12-MAR-1992;
                                                                            12-MAR-1993;
                                                                                            16-SEP-1993
                                                                                                            WO9318148-A
                                                                                                                                          Misc-difference
                                                                                                                                                                  Misc-difference
                                                                                                                                                                                       Misc-difference
                                                                                                                                                                                                               Misc-difference
                                                                                                                                                                                                                                            Misc-difference
                                                                                                                                                                                                                                                                           Misc-difference
                                                                                                                                                                                                                                                                                                        Misc-difference
                                                                                                                                                                                                                                                                                                                               Misc-difference
                                                                                                                                                                                                                                                                                                                                                      Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                    Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                             Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                          Tumour Necrosis
TNF trimer; ion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAR41861;
                                             (WISN/) WISNIESKI B J.
                                                                                                                                                                                                                                                                                                                                                                                                                                              Rat TNF-alpha mutein with modified channel-forming activity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-MAR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAR41861 standard; protein; 156 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PKDTPEGAELKPWY 14
||||||||||||
PKDTPEGAELKPWY 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14;
                               БЯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                       /label= Trp, Ser,
/note= "wild-type of the grader of the series"
                                                                                                                                                                                                                                                                                                                             /label= Trp, Ser, /
/note= "wild-type of 59"
                                                             92US-0852625
                                                                            93WO-US02475.
                                                                                                                                                                                                              /note= "wild-type
                                                                                                                                                                                                                         /label= Arg, Cys, Asp, Gln, Asn, Ser, Thr.
or His
/note= "wild-type channel residue is Lys"
115
/label= Lys, Arg, Cys, Asp, Gln, Asn, Ser
or Thr
                                                                                                                                                                  154
                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                          /note= "wild-type channel residue is Lys" 111
                                                                                                                                                                                                                                                                                                                                                     /note= "wild-type channel residue is
57
                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                          Factor alpha; TNF-a;
channel; mutein.
                                                                                                                                                                       /label= Ala, Val,
/note= "wild-type
                                                                                                                                 /label= Trp, Ser,
                                                                                                                                               /label= Trp, Ser,
/note= "wild-type
                                                                                                                                                                                              /label= Trp, Phe,
/note= "wild-type
                                                                                                                                                                                                                                                                                              /label= Arg, Cys, Glu,
                                                                                                                                                                                                                                                                                                                                                                            /label≃ Glu,
                                                                                                                          "wild-type channel residue is Leu'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                           Arg, Cys,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                               Ser, Thr
                                                                                                                                                                       channel residue is Gly'
                                                                                                                                                                                                                     channel residue is Glu"
                                                                                                                                                                                                                                   Cys, Asp, Gln, Asn, Ser,
                                                                                                                                                                                                                                                                                                               Thr, Alachannel
                                                                                                                                 Thr, Ala, Cys or Tyr
                                                                                                                                                 channel
                                                                                                                                                        Thr,
                                                                                                                                                                                                                                                                                                                                    Thr, Ala, Met, cys, channel residue is I
                                                                                                                                                                                Ser or Thr
                                                                                                                                                                                                                                                                                                                                                                                                                                 target membrane permeability;
                                                                                                                                                Ala, Met, Cys, Phe
nel residue is Ile"
                                                                                                                                                                                                                                                                                                Asp, Gln, Asn, Ser,
                                                                                                                                                                                                                                                                                                                                                                           Asp,
                                                                                                                                                                                                      Thr, Ala,
                                                                                                                                                                                                                                                                                                                      Ala,
                                                                                                                                                                                               residue
                                                                                                                                                                                                                                                                                                               residue
                                                                                                                                                                                                                                                                                                                                                                           Gln, Asn,
                                                                                                                                                                                                                                                                                                                       Met,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                             Met
le is
                                                                                                                                                                                                                                                                                                              Cys or Phe
e is Tyr"
                                                                                                                                                                                                                                                                  Ser, Thr,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                              or Cys
                                                                                                                                                                                                                                                                                                                                                           Lys"
                                                                                                                                                                                                                                                                                                                                            Phe
                                                                                                                                                                                                                                                                                                                                                                           Ser,
                                                                                                                                                         or
                                                                                                                                                                                                                                                                                                                                             or
                                                                                                                                                                                                                                                                                                                                                                            Thr
                                                                                                                                                                                                                                     His
                                                                                                                                                                                                                                                                  Glu
                                                                                                                                                                                                                                                                                                Thr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                        Tyr
                                                                                                                                                                                                                                                                                                                                            Tyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
В
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RESULT 8
AAR41862
ID AAR4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 14
                                                                                                                                                                                          /note=
Misc-difference 115
                                                                                                                                                                                                                                             /note= "wild-type Misc-difference 112
                           Misc-difference
                                                                                                                                           /note= "wild-type channel residue is Glu"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The sequence of rat TNF-alpha disclosed in Agric.Biol.Chem 53: 1733-1736 (1989) is given in the specification. A modified version of this sequence is claimed in which at least one of the channel residues is substituted (see Features Table). The resulting TNF-alpha mutein has modified channel activity compared to wild-type.
                                                                  Misc-difference
                                                                                                         Misc-difference 120
                                                                                                                                                                                                                                                                                                                Misc-difference
                                                                                                                                                                                                                                                                                                                                                       Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                              Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Murine TNF-alpha mutein with modified channel-forming activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAR41862 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tumour Necrosis
TNF trimer; ion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-MAR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAR41862;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 6; Page 37-38 and 51-53; 72pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             regulating tumour necrosis factor channel activity e.g. increasing permeability
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         101 PKDTPEGAELKPWY 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PKDTPEGAELKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          l Similarity 100
14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              156 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first
                                                                                                                                                                                                                                                                                                               /note=
97
                                                                  /note=
154
                                                                                                                                                                                                                                                                                                                                                                                             /note= "wild-type channel residue is
57
                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Factor alpha; channel; mute:
                                                                                                                                                                                                                               /label= Arg, Cys,
or His
/label= Trp, Ser,
/note= "wild-type
                                     /note= "wild-type
                                                    /label=
                                                                                                                      /note=
                                                                                                                                     /label=
                                                                                                                                                                            /label= Lys, Arg,
or Thr
                                                                                                                                                                                                                                                                                    /label= Arg, Cys,
or His
                                                                                                                                                                                                                                                                                                                          /label= Trp, Ser,
/note= "wild-type
                                                                                                                                                                                                                                                                                                                                                                 /label= Trp, Ser, Thr, Ala,
/note= "wild-type channel ro
                                                                                                                                                                                                                                                                                                                                                                                                                       /label= Glu, A
                                                                                             ∕label≖ Ala, Val,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein; 156 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
                                                                            "wild-type
                                                                                                                                                                                                                 "wild-type
                                                                                                                    "wild-type
                                                                                                                               Trp,
                                                    Trp,
                                                                                                                                 Phe,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                    Ser,
                                                                                                                                                                                                                                                                                                                                                                                                                                 Arg, Cys, Asp, Gln, Asn,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TNF-a;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 84;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                      Ser, Thr
                                                                                                                                                                                                                                                                                                                          Thr, Ala,
channel re
Thr, Ala, Cys or Tyr channel residue is L
                                     Thr, Ala, Met, Cys, Phe or channel residue is Ile"
                                                                             Ser or Thr channel residue is Gly"
                                                                                                                                                                                       Cys, Asp, Gln, Asn, Ser,
                                                                                                                                                                                                                                           Asp, Gln, Asn, Ser, Thr,
                                                                                                                                                                                                                                                                                                 Glu, Asp, Gln, Asn, Ser,
                                                                                                                                                                                                                   channel
                                                                                                                                                                                                                                                                      channel residue is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            target membrane permeability;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    English
                                                                                                                                 Thr,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.4e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 14;
                                                                                                                      r, Ala, M
                                                                                                                                                                                                                                                                                                                           a, Met, C
residue
                                                                                                                                                                                                                   residue
                                                                                                                                                                                                                                                                                                                                                                  residue
                                                                                                                                                                                                                                                                                                                                                                 met, cys,
residue is I
                                                                                                                    , Met or Cys
ie is Tyr"
                                                                                                                                                                                                                                                                                                                           Cys
le is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 156;
                                                                                                                                                                                                                   is Lys"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                      Lys"
                                                                                                                                                                                                                                                                                                                           or Phe
Tyr"
                                                                                                                                                                                                                                                                                                                                                                  , Phe
Leu"
                                                                                                                                                                                                                                                                                                                                                                                                         Lys"
                                                                                                                                                                                                                                                                                                                                                                                                                                  Ser,
                                                                                                                                                                                                                                                                                                                                                                                or
                                                                                                                                                                                        His
                                                                                                                                                                                                                                             Glu
                                                                                                                                                                                                                                                                                                  Thr
                                                                                                                                                                                                                                                                                                                                                                                                                                  Thr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                    Tyr
                                                                                                                                                                                                                                                                                                                                                                               Tyr
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RESULT 9
AAR60244
ID AAR6
XX AAR6
XX HOUS
AC AAR6
XX HOUS
XX HOUS
XX HOUS
XX HOUS
XX HOUS
XX HUS
FT MIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 14
             Misc-difference 107
                                                Misc-difference
                                                                                  Misc-difference
                                                                                                          Misc-difference
                                                                                                                                            Misc-difference
                                                                                                                                                                                                                                                                           mutagenesis
                                                                                                                                                                                                                                                                                  TNF-alpha; tumor necrosis factor-alpha; tip peptide; mutein; cancer; sepsis; inflammation; cytokine; metastasis; lectin; adhesion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The sequence of murine TNF-alpha disclosed in PNAS USA 83:1670-1674 (1986) is given in the specification. A modified version of this sequence is claimed in which at least one of the channel residues is substituted (see Features Table). The resulting TNF-alpha mutein has modified channel activity compared to wild-type.
                                                                                                                                                                    Misc-difference 100
                                                                                                                                                                                                                                                    Mus sp.
                                                                                                                                                                                                                                                                                                                                                 16-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                        AAR60244;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Producing modified tumour necrosis factor alpha - useful for regulating tumour necrosis factor channel activity e.g. increasing permeability
                                                                                                                                                                                                                  Misc-difference
                                                                                                                                                                                                                                                                                                                         Mouse-alpha.
                                                                                                                                                                                                                                                                                                                                                                                             AAR60244 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 6; Page 39 and 51-53; 72pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1993-303462/38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Wisnieski BJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-MAR-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (WISN/) WISNIESKI B J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12-MAR-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-SEP-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   W09318148-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                           101
                                                                                                                                                                                                                                                                                                                                                                                                                                                         PKDTPEGAELKPWY 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PKDTPEGAELKPWY 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         l Similarity
14; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      156 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
llarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              92US-0852625
                                                105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   93WO-US02475
                                                                                 104
                                                                                                          102
                                                                                                                                            101
                                                                                                                                                                                                                Location/Qualifiers
1..8
  /note-
                                                                       /note=
                                   /note-
                                                                                                                                /note=
                                                                                                                                                                                                       /note=
                                                                                               note=
                                                                                                                                                         /note-
                                                                                                                                                     "in
                      "in TNF muteins, residue 105 is
                                                          or
or
                                                                                                                                                                             "in TNF muteins, residues 1-8 are replaced
by a peptide within the region spanning
aa 5-30 of laminin"
"In TNF muteins, residue 107 is Phe"
                                                                                            "in TNF muteins, residue 102 is
                                                                                                                    "in TNF muteins, deleted"
                                                          TNF muteins, residue 104
                                                                                                                                                      TNF muteins,
                                                                                                                                                                                                                                                                                                                                                                                               156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 84; DB Pred. No. 1.4); Mismatches
                                                                                                                                                                                                                                                                                                                                                                                               B
                       Ser
                                                          residue 104 is Pro
is Ile and residue 4
                   residue 105 is Ser, or
Ser and residue 130 is Cys"
                                                                                                                              residue 101 is Arg or
                                                                                                                                                      residue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.4e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                      100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 156;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                     is
                                                                                            Trp"
                                                                                                                                                      Ser"
                                                        o or Ile
44 is Cys"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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RESULT 10
AAP60527
ID AAP60
XX AAP60
XX AAP60
XX O7-AU
XX Seque
XX AAR11
CX AAR11
CX

AAP60527; 07-AUG-1991

(first entry)

AAP60527 standard; Protein; 157 AA

Sequence of tumour necrosis factor (TNF).

antitumour; antimalarial;

tumour necrosis factor.

03-JUL-1986. 19-DEC-1985;

85WO-EP00721.

Anticancer agent; WO8603751-A.

Вb

101

PKDTPEGAELKPWY

114

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δÃ
                                                                                 Matches
                                                         Query Match
                                                                                                             TNF-alpha muteins were constructed in the tip region (given in AAR60231) of mouse TNF-alpha. The mutations resulted in: modulation of lectin-like activity; reduced toxic activity; modulation of inflammatory activity; modulated adhesion molecule inducing capacity; reduced metastasis promoting activity; and/or increased half-life. Muteins of the human TNF (given in AAR60243)
                                                                                                                                                                                                                         New tumour necrosis factor -alpha muteins, antibodies and antisense peptide(s) - used in the treatment of diseases and conditions associated with the in vivo activities of TNF-A ecancer, sepsis, inflammation, etc
                                                                                Sequence
                                                                                                                                                                                                 Disclosure; Page 10; 132pp; English.
                                                                                                                                                                                                                                                                                                         De Baetselier P,
                                                                                                                                                                                                                                                                                                                                                        03-FEB-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note= "In TNF muteins, residue 109 is Lys" Misc-difference 110..111
                                                                                                                                                                                                                                                                                    WPI;
                                                                                                                                                                                                                                                                                                                                                                                                     18-AUG-1994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Misc-difference 109
                                                                                                                                                                                                                                                                                                                                (INNO-) INNOGENETICS NV
                                                                                                                                                                                                                                                                                                                                                                              02-FEB-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                            WO9418325-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Misc-difference 114..115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Misc-difference 114
                                              Local
1 PKDTPEGAELKPWY
                                                                                                                                                                                                                                                                                   1994-279746/34
                                  l Similarity
14; Conserv
                                                                                                       produced
                                                                                 156 AA;
                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                              94WO-EP00286
                                                                                                                                                                                                                                                                                                                                                        93EP-0400262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note=
115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "In TNF muteins, Val"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note=
                                                                                                                                                                                                                                                                                                         Fransen L,
            14
                                              100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 "In TNF muteins, residues 114-115 Ile-Lys"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "In TNF muteins,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "In TNF muteins,
                                                                                                                                                                                                                                                                                                                                 SA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            deleted, or residue 110 is deleted
or Met, or residue 110 is deleted and
residue 108 is Gln and residue 119 is
                                   0,
                                              Score 84;
Pred. No.
                                                                                                                                                                                                                                                                                                         Lucas R,
                                   Mismatches
                                             ; DB 15;
. 1.4e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      residue 114 is Ile or Cys"
                                                                                                                                                                                                                                                                                                          Sablon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                residue 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                residues 110-111 are
                                   0,
                                                                                                                  (given in AAR60243)
                                                         Length 156;
                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               is Lys, His
                                                                                                                                                                                                                                    eg
                                   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              His"
                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Or.
                                   0,
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RESULT 11
AAR38077
ID AAR38
XX AAR38
XX AAR38
XX Withd
XX Withd
XX Withd
XX Worph
XX Synth
XX Synth
XX Synth
XX FT Misc-
FT Misc-
FT Y
PN JP051
XX 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-OCT-1985;
21-DEC-1984;
09-OCT-1986;
Drugs for treating alcohol, morphine narcotics or nicotine withdrawal symptoms - contg. tumour necrosis factor-alpha, thymosin tumour necrosis factor fused cpd. or murine tumour necrosis factor-alpha prepd. from macrophage of human or animal
                                                                                                                                WPI; 1993-191442/24.
                                                                                                                                                                                                                                                                                                            23-OCT-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Withdrawal symptom; tumour necrosis factor; narcotic; nicotine; morphine; thymosin; alcohol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       expression control sequence in the transformed host.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TNF-like polypeptides and compsns. are produced by the fermentation of host cells transformed with at least one DNA sequence which codes for a mammalian TNF-like polypeptide operatively linked to an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 12; Page 67; 93pp; English.
                                                                                                                                                                                                                                                            23-OCT-1991;
                                                                                                                                                                                                                                                                                                                                                             14-MAY-1993
                                                                                                                                                                                                                                                                                                                                                                                                            JP05117161-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Non-human TNF-alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-OCT-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAR38077 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mammalian tumour necrosis factors - produced by cul pro-karyotic hosts transformed with recombinant DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Fiers WC, Fransen LM,
VanDerHeyden J, Allet
                                                                                                                                                                                 (MIZU/) MIZUNO D. (SOMA/) SOMA G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB; AAN60439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1986-182891/28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (BIOJ ) BIOGEN NV.
(FIER/) FIERS W C.
(ALLE/) ALLET B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (BIOG-) BIOGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           102 PKDTPEGAELKPWY 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 PKDTPEGAELKPWY 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         157 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     85US-0785847.
84US-0684595.
86WO-US02133.
                                                                                                                                                                                                                                                            91JP-0337489
                                                                                                                                                                                                                                                                                                            91JP-0337489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note= "residue not labelled in specification"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tavernier JHL,
3, Washima EH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 84; DE
Pred. No. 1.4
D; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.4e-05;
hes 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Marmenout ALM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 157;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           culturing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           codes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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В
                    QУ
                                                                                        AAP70558
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 12
                                            Matches
                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Drugs acting on withdrawal symptoms contain TNF, esp. TNF-alpha (AAR38069 and AAR38077), rTNF-S-AM1 (AAR38070), rTNF-S-AM2 (AAR38071), thymosin beta4-TNF fused cpd. (AAR38072-76).

The drugs are effective in treatment of withdrawal symptoms caused by habitual use of alcohol, morphine narcotics or nicotine in humans or animals (e.g. swine, dog, cat, chicken). The drugs may be administered as TNF at a dose of 10ng-10mg orally or 5ng-1mg i.v. or 50ng-50mg percutaneously a day for a human adult. In animals, the drugs may be administered according to the human dosage (1/60 per kg body wt.).
                                                                                                           The sequence encodes tumor necrosis factor which is an a agent and a lymphokine. This sequence is the same as th AAP70557 but has 16 extra amino acids at the N-terminal.
                                                                                       Sequence
                                                                                                                                                     Disclosure; Page 12; 12pp; Japanese.
                                                                                                                                                                                                    N-PSDB; AAN70891
                                                                                                                                                                                                                                                                              06-DEC-1985;
                                                                                                                                                                                                                                                                                                                                                TNF; antitumor
                                                                                                                                                                            Anticancer factor - expressed by specified amino acid sequence
                                                                                                                                                                                                                                  (TANA ) TANABE SEIYAKU KK
                                                                                                                                                                                                                                                         06-DEC-1985;
                                                                                                                                                                                                                                                                                                     18-JUN-1987
                                                                                                                                                                                                                                                                                                                          JP62135493-A
                                                                                                                                                                                                                                                                                                                                                                     Tumor necrosis
                                                                                                                                                                                                                                                                                                                                                                                          26-FEB-1991
                                                                                                                                                                                                                                                                                                                                                                                                                AAP70558
                                                                                                                                                                                                                                                                                                                                                                                                                                     AAP70558 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Page 2-3; 5pp; Japanese.
115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              102 PKDTPEGAELKPWY
          1 PKDTPEGAELKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PKDTPEGAELKPWY
 PKDTPEGAELKPWY
                                                                                                                                                                                                              1987-209318/30
                                            14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                        170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   157 AA;
                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                       AA;
                                                                                                                                                                                                                                                                                                                                                                     factor
                                                                                                                                                                                                                                                          85JP-0275392
                                                                                                                                                                                                                                                                               85JP-0275392
                                                                                                                                                                                                                                                                                                                                                                                                                                    protein;
 128
                      14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14
                                                     100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                     170
                                            0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 84;
Pred. No.
                                                     Score 84; I
Pred. No. 1.
                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.4e-05;
                                                    DB 8; :
1.5e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 14;
                                                               Length 170;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 157;
                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                       that
                                                                                                                       in
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                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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AAP90424 ID AAP9 XX

AAP90424 standard;

protein;

233 AA

RESULT 13

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RESULT 14
AAP60530
            ACC XXX ACC XX
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 14; Conserv
                                                                                                                      09-OCT-1985;
21-DEC-1984;
09-OCT-1986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tumour necrosis factor of mouse, obtd. after intron splicing (see AAN90229). Used to study carcinostatic mechanism of TNF, and the promoter can be used in an express.
                                                                                                                                                                                                                                                19-DEC-1985;
                                                                                                                                                                                                                                                                                                            03-JUL-1986
                                                                                                                                                                                                                                                                                                                                                                       WO8603751-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-AUG-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAP60530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAP60530 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; fig 2; 8pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA fragment contg. mouse TNF-coding chromosomal gene contains exon and intron and about 800 bases in the 5'-terminal adjacent to the exon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tumour necrosis factor; mouse; DNA; carcinostatic mechanism; expression
(BIOJ ) BIOGEN NV.
(FIER/) FIERS W C.
(ALLE/) ALLET B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Anticancer agent; antitumour; antimalarial; tumour necrosis factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence of tumour necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1989-198221/27.
N-PSDB; AAN90229.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Murine (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               vector.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (ASAH ) ASAHI CHEMICAL IND KK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-NOV-1987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-NOV-1987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24 - MAY - 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JP01137976-A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAP90424;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            178 PKDTPEGAELKPWY 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 PKDTPEGAELKPWY 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   233 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                      85US-0785847.
84US-0684595.
86WO-US02133.
                                                                                                                                                                                                                                                85WO-EP00721.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   factor (TNF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 84; DB 10;
Pred. No. 2.1e-05;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             vector.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 233;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
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RESULT 15
AARO5328
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AC AARO5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PA XXX PA
Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 14; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                       Sequence
                                                                                                                                                                          Fragment of gene product peptide, produced from a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TNF-like polypeptides and compsns. are produced by the fermentation of host cells transformed with at least one DNA sequence which codes for a mammalian TNF-like polypeptide operatively linked to an expression control sequence in the transformed host.
                                                                                                                                                                                                                                                       Disclosure; ; ; Japanese
                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1990-228715/30
N-PSDB; AAQ05328.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-DEC-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tumour necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAR05328 standard; protein; 235 AA
                                                                                                                                                       system.
                                                                                                                                                                                                                                                                                                             contg. DNA.
                                                                                                                                                                                                                                                                                                                                     Novel anti-oncotic polypeptide - prepd. by culturing microbe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (ASAH ) ASAHI CHEMICAL IND KK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-DEC-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-JUN-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JP02157295-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rattus sp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rat tumour necrosis factor (TNF) gene product.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       03-DEC-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR05328;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example; Fig 7; 93pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mammalian tumour necrosis factors - pro-karyotic hosts transformed with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1986-182891/28.
N-PSDB; AAN60445.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fiers WC, Fransen LM, Ta
VanDerHeyden J, Allet B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180 PKDTPEGAELKPWY 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (BIOG-) BIOGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 PKDTPEGAELKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14; Conservative
                                                                                                       235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 235 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       88JP-0307751.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          88JP-0307751.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 factor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TNF;
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3, Washima EH;
                                                                                                                                                                               (AAs 80-235) is claimed as transformed microorganism (
  0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 84; DB 7;
Pred. No. 2.1e-05;
; Mismatches 0;
Score 84; DB 11;
Pred. No. 2.1e-05;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              produced by recombinant
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   culturing
DNA
                                                  Length 235;
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  Indels
                                                                                                                                                                               s an antioncotic expression
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1 PKDTPEGAELKPWY

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Db 180 PKDTPEGAELKPWY 193

Search completed: April 4, 2003, 08:39:55 Job time: 26.9677 secs

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Result
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Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŏ
                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score
                                                                                                                                                                                                                               46
                                                                                                                                                                                                                                                                                                                                                                                                                                            48
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                                                                                                                                                                                                                                                                                                                                                              length: 0
length: 2000000000
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Match Length
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1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
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Gapop 10.0 , Gapext 0.5
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84
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ALIGNMENTS	methylmalonyl-CoA hypothetical prote hypothetical prote hypothetical prote probable methylmal methylmalonyl-CoA methyl-accepting c probable chemotaxi membrane-bound mul tumor necrosis fac secretory protein secretory protein aminopeptidase hom hypothetical prote replication factor probable replicati

tumor necrosis factor alpha precursor - mouse N; Alternate names: cachectin; TNF alpha

C; Species: Mus musculus (house mouse)

DNA 7, 193-201, 1988 A;Title: Cloning and expression in Escherichia coli of the gene for mouse tumor necro A;Reference number: A22908; MUID:88224564; PMID:2836146 A;Accession: A22908 A;Molecule type: DNA A;Residues: 1-235 <shi>A;Cross-references: GB:M20155 R;Shakhov, A. N.; Medospasov, S. A. Bioorg. Khim. 13, 701-705, 1987 A;Title: Nolecular cloning of the genes coding for tumor necrosis factors: complete n A;Reference number: S03791; MUID:87298639; PMID:3040015 A;Accession: S03791 A;Molecule type: DNA A;Residues: 1-235 <sha> A;Residues: 1-235 <sha> A;Residues: 1-235 <sha> A;Residues: 1-235 SHA> A;Residues: 1-235</sha></sha></sha></shi>

J. Biol. Chem. 264, 16256-16260, 1989
A;Title: Alternative cleavage of the cachectin/tumor necrosis factor propeptide resul A;Reference number: A34251; MUID:89380231; PMID:2777790

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C;Genetics:
A;Introns: 62/3; 81/1; 97/1
A;Note: the first intron occurs in the 5'-untranslated region
A;Note: the first intron occurs in the 5'-untranslated region
C;Superfamily: tumor necrosis factor
C;Keywords: cytokine; cytotoxin; glycoprotein; lipoprotein; lymphokine; macrophage; |
F;80-235/product: tumor necrosis factor #status sperimental <MATY
F;80-235/product: tumor necrosis factor #status predicted
F;84/Binding site: myristate (Lys) (covalent) #status predicted
F;84/Binding site: carbohydrate (Ser) (covalent) #status predicted
F;86/Binding site: carbohydrate (Asn) (covalent) #status predicted
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A;Residues: 1-38,'P',40-162,'T',164-201,'S',203-235 <ESTNA;Cross-references: GB:X66539; GB:S40199; NID:g395369; PIDN:
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A;Title: Characterization of high molecular weight glycosylated A;Reference number: A36696; MUID:91097531; PMID:2268312
A;Accession: A36696
A;Molecule type: protein A;Residues: 80-85,'X',87-99 <SHE>
C;Genetics:
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R;Estler, H.C.; Grewe, M.; Gaussling, R.; Pavlovic, M.; Decker, K.
Biol. Chem. Hoppe-Seyler 373, 271-281, 1992
A;Title: Rat tumor necrosis factor-alpha. Transcription in rat Kupffer cells and A;Reference number: S21674; MUID:92329007; PMID:1627266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tumor necrosis factor alpha precursor - rat
N;Alternate names: cachectin; TNF alrah
C;Species: Rattus norvegicus (Norway rat)
C;Date: 07-Jun-1990 #sequence_revision 07-Jun-1990 #text_change 04-Feb-2000
C;Date: 07-Jun-1990 #sequence_revision 07-Jun-1990 #text_change 04-Feb-2000
C;Accession: JU0029; JN0868; S21674
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A;Accession: JU0029
A;Molecule type: DNA
A;Residues: 1-235 <SHI>
R;Kwon, J.; Chung, I.Y.; Benveniste,
Gene 132, 227-236, 1993
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A;Molecule type: mRNA
A;Residues: 1-230,'R',232-235 <RES>
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A;Molecule type: protein
A;Residues: 70-87 <CSE>
A; Gene:
                     C; Genetics:
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A; Residues: 1-235 <KWO>
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A;Molecule type: DNA
A;Residues: 1-232 <DRE>
A;Residues: 1-232 <DRE>
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A;Cross-references: EMBL:X54001; NID:g2135; PIDN:CAA37949.1; PID:g2136
R;Kuhnert, P.; Wuethrich, C.; Peterhans, E.; Paull, U.
Gene 102, 171-178, 1991
A;Title: The porcine tumor necrosis factor-encoding genes: sequence and A;Title: The porcine tumor necrosis factor-encoding genes: sequence and A;Reference number: S17289; MUID:91340150; PMID:1874444
A;Accession: S17290
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C;Keywords: cytokine; cytotoxin; glycoprotein; lipoprotein; lymphole;80-235/Product: tumor necrosis factor #status predicted <MAT>
F;19,20/Binding site: myristate (Lys) (covalent) #status predicted F;84/Binding site: carbohydrate (Ser) (covalent) #status predicted F;86/Binding site: carbohydrate (Asn) (covalent) #status predicted F;86/Binding site: carbohydrate (Asn) (covalent) #status predicted F;148-179/Disulfide bonds: #status predicted
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C;Species: Sus scrofa domestica (domestic pig)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change
C;Accession: S12606; S17290; S18965; I46659
R;Drews, R.T.; Coffee, B.W.; Prestwood, A.K.; McGraw, R.A.
Nucleic Acids Res. 18, 5564, 1990
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C;Superfamily: tumor necrosis factor
C;Superfamily: tumor necrosis factor
C;Keywords: glycoprotein; lipoprotein; myristylation
E;19,20/Binding site: myristate (Lys) (covalent) #status predicted
F;84/Binding site: carbohydrate (Ser) (covalent) #status predicted
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Immunogenetics 35, 351-353, 1992
A;Title: Sequence of the tumor necrosis factor/cachectin
A;Reference number: I54490; MUID:92218012; PMID:1348497
A;Accession: I54490
A;Cross-references: EMBL:X54859; NID:g2132; PIDN:CAA38639.1; A;Note: the authors translated the codon GAG for residue 202 R;Choi, C.S.; Molitor, T.W.; Lin, G.F.; Murtaugh, M.P.
                                                                              A; Molecule type: DNA
A; Residues: 1-232 <KUH>
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A; Gene: PlINF
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A; Residues: 1-235 < RES>
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85.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14
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100.0%; Pred. No. 4.86
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Submitted to the A; Description: A; Reference number 1
                                                    R; Wang, A.M.; Creasey, A.A.
Science 228, 149-154, 1985
                                                                            A;Cross-references: GB:X02910; GB:X02159; NID:g37209; PIDN:CAA26669.1; PID:g37210 A;Note: this protein was isolated from the monocyte-like cell line HL-60 from a pinking A.M.; Creasey, A.A.; Ladner, M.B.; Lin, L.S.; Strickler, J.; Van Arsdell,
                                                                                                                                                                                                                                 A;Title: Human tumour necrosis factor: precursor structure, A;Reference number: A93351; MUID:85086244; PMID:6392892 A;Accession: A93351
                                                                                                                                                                                                                                                                                                                   A;Cross-references: EMBL:215026; NID:g37211; PIDN:CAA78745.1; PID:g37212 A;NOte: the nucleotide sequence was submitted to the EMBL Data Library, I R;Pennica, D.; Nedwin, G.E.; Hayflick, J.S.; Seeburg, P.H.; Derynck, R.; Nature 312, 724-729, 1984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Title: Human lymphotoxin and tumor necrosis factor genes: structure, homology and chroa; Reference number: A93585; MUID:86016093; PMID:2995927
A;Accession: A93585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N;Alternate names: cachectin; TNFA
C;Species: Homo sapiens (man)
C;Date: 28-Aug-1985 *sequence_revision 28-Aug-1985 *text_change 08-Dec-2000
C;Accession: A93585; S36153; A93351; A44189; B61478; I53311; S62610; I54522; A01646; B23
R;Nedwin, G.E.; Naylor, S.L.; Sakaguchi, A.Y.; Smith, D.; Jarrett-Nedwin, J.; Pennica, E
Nucleic Acids Res. 13, 6361-6373, 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 F;19,20/Binding site: myristate (Lys) (covalent)
F;81/Binding site: carbohydrate (Ser) (covalent)
F;144-176/Disulfide bonds: #status predicted
A;Title: Molecular cloning of the complementary DNA for A;Reference number: A44189; MUID:85142190; PMID:3856324
                                                                                                                                                                       A; Molecule type: mRNA
A; Residues: 1-233 < PEN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Title: Dense Alu clustering and a potential new member of the NFkappaB family within A;Reference number: S36152; MUID:93272029; PMID:8499947 A;Accession: S36153
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A; Residues: 1-233 <IRI>
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Nature Genet. 3, 137-145, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: GB:X02910; GB:X02159; NID:g37209; PIDN:CAA26669.1; R;Iris, F.J.M.; Bougueleret, L.; Prieur, S.; Caterina, D.; Primas, G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: DNA
A; Residues: 1-233 <NED>
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A;Title: Porcine tumor necrosis factor alpha: Cloning with
A;Reference number: 146659; MUID:90034181; PMID:2478420
A;Accession: 146659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tumor necrosis factor alpha precursor [validated] - human
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                                                                                                                                                                                                                                                                                                                 724-729, 1984
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Complete nucleotide sequence of a cDNA encoding porcine tumor necrosis
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76.98;
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0.0056;
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Perrot, V.,
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                                                                                  from a promyel Arsdell, J.N.;
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191

2 KDTPEGAELKPWY 14 RETPEGAEAKPWY

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A;Gene: GDB:TNF; TNFA
A;Gene: GDB:TNF; TNFA
A;Cross-references: GDB:120441; OMIM:191160
A;Map position: 6p21.3-6p21.3'
A;Introns: 62/s; 78/1; 94/1
C;Complex: homotrimer
C;Superfamily: tumor necrosis factor
C;Superfamily: tumor necrosis factor
C;Keywords: cytokine; cytotoxin; glycoprotein; homotrimer; lipoprotein:
F;1-76/Domain: propeptide #status predicted <PRO>
F;17-233/Product: tumor necrosis factor #status experimental <MAT>
F;19,20/Binding site: myristate (Lys) (covalent) #status experimental
F;81/Binding site: carbohydrate (Ser) (covalent) (partial) #status exper
F;145-177/Disulfide bonds: #status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: GB:S68530; NID:g544751

R;Stevenson, F.T.; Bursten, S.L.; Locksley, R.M.; Lovett, D.H.

J. Exp. Med. 176, 1053-1062, 1992

A;Title: Myristyl acylation of the tumor necrosis factor alpha precursor on specific A;Reference number: A59163; MUID:93018820; PMID:1402651

A;Contents: annotation; identification of myristylated lysines

R;Aggarwal, B.B.; Kohr, W.J.; Hass, P.E.; Moffat, B.; Spencer, S.A.; Henzel, W.J.; Br

J. Biol. Chem. 260, 2345-2354, 1985

A;Title: Human tumor necrosis factor. Production, purification, and characterization.

A;Reference number: A92511; MUID:85130974; PMID:3871770

A;Contents: annotation; disulfide bond

C;Comment: Secreted from mitogen-activated macrophages within 4-24 hours after induct out detriment to normal cells. It can also act synergistically with interferon gamma C;Comment: TMF-alpha and -beta (Jymphotoxin) are the products of different genes clos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ut are produced by different cell types and C; Genetics:
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A;Residues: 77-99 <TAK>
A;Residues: 77-99 <TAK>
A;Residues: 77-99 <TAK>
A;D'Alfonso, S.; Richiardi, P.M.
Immunogenetics 39, 150-154, 1994
A;Title: A polymorphic variation in a putative regulation box
A;Reference number: I54522; MUID:94102809; PMID:7903959
A;Accession: I54522
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A;Experimental source: U-937 cells
R:Takakura-Yamamoto, R; Yamamoto, S; Fukuda, S.; Kurimoto, M.
Eur. J. Biochem. 235, 431-437, 1996
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A;Residues: 83-102;109-119;121-128,'x',130-131;142-144,'x',146,'xxx',150-152;159-174;
R:Marmenout, A.; Fransen, L.; Tavernier, J.; Van Der Heyden, J.; Tizard, R.; Kawashim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Title: Simultaneous production of natural human tumor necrosis factor-alpha, A;Reference number: A61478; MUID:88301617; PMID:2841543 A;Accession: B61478
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A;Residues: 1-62,'S',64-233 <WAN>
A;Residues: 1-62,'S',64-233 <WAN>
A;Cross-references: GB:M10988; NID:g339737; PIDN:AAA61198.1; PID:g339738
R;Fukuda, S.; Ando, S.; Sanou, Q.; Taniai, M.; Fujii, M.; Masaki, N.; Nakamura,
Lymphokine Res. 7, 175-185, 1988
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A; Residues: 1-8 <DAL>
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A; Residues: 1-233 <MAR>
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                                                                      Query Match
                                                Local
                                        Similarity
       Conservative
                                        77.4%;
76.9%;
       2;
                                     Score 65;
Pred. No.
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C:Superfamily: tumor necrosis factor C:Keywords: glycoprotein; lipoprotein; myristylation; transmembrane F:19,20/Binding site: myristate (Lys) (covalent) #status predicted F:81/Binding site: carbohydrate (Ser) (covalent) #status predicted F:145-177/Disulfide bonds: #status predicted
                   tumor necrosis factor alpha precursor - bovine (fragment) c;Species: Bos primigenius taurus (cattle) C;Date: 19-May-1995 #sequence_revision 21-Jul-1995 #text_C;Accession: $52715 R;Mertens, B.; Galdulis, L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Title: Gene sequence of feline tumor necrosis factor alpha A;Reference number: S11688; MUID:91016860; PMID:2216740 A;Accession: S11688
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submitted to the EMBL Data Library, September 1991
A;Description: Baboon Tumor Necrosis Factor Derived from Sequences
A;Reference number: S22052
A;Accession: $22052
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A; Residues: 1-233 <MCG>
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Nucleic Acids Res. 18,
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C;Species: Felis silvestris catus (domestic cat)
C;Date: 21-Nov-1993 #sequence_revision 10-Nov-19
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A; Residues: 1-233 <SAN>
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Library, March 1995
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C:Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 04-Feb-2000
C;Accession: JH0529; S48118; S13114; S20661
R;Green, I.R.; Sargan, D.R.
Gene 109, 203-210, 1991
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C;Superfamily: tumor necrosis factor
C;Superfamily: tumor necrosis factor
C;Keywords: 91ycoprotein; lipoprotein; myristylation; transmembrane
F;20/Binding site: myristate (Lys) (covalent) #status predicted
F;81/Binding site: carbohydrate (Ser) (covalent) #status predicted
F;145-177/Disulfide bonds: #status predicted
A; Experimental source: alveolar macrophage R; Nash, A.D.; Barcham, G.J.; Brandon, M.R.; Immunol. Cell Biol. 69, 273-283, 1991
                                                                                                                                         Gene 109, 203-210, 1991

A;Tittle: Sequence of the cDNA encoding ovine tumor necrosis factor-alpha: problems wi A;Reference number: JH0529; MUID:92112044; PMID:1765267

A;Accession: JH0529
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Cytokine 5, 336-341, 1993
A;Title: Cloning and characterization of the tandemly arranged bovine lymphotoxin A;Reference number: I46046; MUID:94083525; PMID:8260599
A;Accession: I46047
A;Status: preliminary; translated from GB/EMBL/DDBJ
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                                                                    A; Cross-references: EMBL: X55152; NID: g1405;
                                                                                            A; Molecule type: mRNA
A; Residues: 1-234 <GRE>
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N;Alternate names: cachectin; TNF alpha
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C;Genetics:
A;Gene: TNFA
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A; Residues: 1-233 <CL2>
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C;Date: 10-Sep-1999 #sequence_revision 10-
C;Accession: I46047; S24642
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A; Residues: 1-185 < MER>
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expression and characterization

of ovine TNF-alpha.

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A;Introns: 62/3; 79/1; 95/1
A;Introns: 62/3; 79/1; 95/1
C;Superfamily: tumor necrosis factor
C;Keywords: cytokine; cytotoxin; lycoprotein; lipoprotein; lymphok
E;78-234/Product: tumor necrosis factor alpha #status predicted
E;19,20/Binding site: myristate (Lys) (covalent) #status predicted
E;82/Binding site: carbohydrate (Ser) (covalent) #status predicted
E;146-178/Disulfide bonds: #status predicted
  bis(5'-nucleosyl)-tetraphosphatase (symmetrical) (ECC:Species: Yersinia pestis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Su, X.; Morris, D.D.; McGraw, R.A.
Gene 107, 319-321, 1991
A;Title: Cloning and characterization of gene TNF alpha
A;Reference number: JQ1344; MUID:92084125; PMID:1748301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C:Keywords: alternative splicing; cytokine; cytotoxin; glycoprotein; lipoprotein; lymphd F:1-77/Domain: propeptide *status predicted <PRO>
F:78-234/Product: tumor necrosis factor alpha *status predicted <TUM>
F:20/Binding site: myristate (Lys) (covalent) *status predicted
F:82/Binding site: carbohydrate (Ser) (covalent) *status predicted
F:96/Binding site: carbohydrate (Asn) (covalent) *status predicted
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A;Residues: 1-62,64-234 <YOU>
A;Residues: 1-62,64-234 <YOU>
A;Cross-references: EMBL:X55966; NID:g1403; PIDN:CAA39437.1; PID:g1404
A;Note: comparison with the introns of homologous sequences suggest th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Title: Primary structure of ovine tumor necrosis factor A; Reference number: S13114; MUID: 91067496; PMID: 2251151 A; Accession: S13114
                                                          AH0060
                                                                                RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Gene: TNF-alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references: GB:M64087; NID:g164244; PIDN:AAA30959.1; PID:g164245 C;Comment: This protein is an important proximal mediator of endotoxemia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: DNA
A; Residues: 1-234 <SUX>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Reference number: JQ1344; A; Accession: JQ1344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tumor necrosis factor alpha precursor N; Alternate names: cachectin; TNF alpha
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Residues: 1-234 <NAS>
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                                                                                                                                                                                                                                                                                           Query Match
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Date: 10-Sep-1999 #sequence_revision
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                                                                                                                                                                                                 3 DTPEGAELKPWY 14
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                                                                                                                                                     ESPEQAEAKPWY 192
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8; Conser
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66.7%;
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                                                                                                                                                                                                                                          Score 51; DB Pred. No. 1; 2; Mismatches
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                        3.6.1.41) [imported]
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                        Yersinia pes
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                                                                                                                                                                                                                                                                                                                                                                                                                                    mem.
A; Title: The A; Reference
                                            R; Bolotin, A.; Wincker, P.;
Genome Res. 11, 731-753, 200
                                                                                                                hypothetical protein yqbK [imported] - Lactococcus lactis subsp. lactis (strain IL140 C;Species: Lactococcus lactis subsp. lactis C;Species: Lactococcus lactis subsp. lactis C;Date: 23-Mar-2001 #sequence_revision 23-Mar-2001 #text_change 03-Aug-2001
                                                                                            C; Accession: C86822
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A;Gene: apaH
C;Superfamil
C;Keywords:
                                                               Query Match
Best Local Similarity
Watches 9; Conserva
                                                                                                                                                                    C;Keywords: cytokine; cytotoxin; glycoprotein; lymphokine; macrophage; F;42/Binding site: carbohydrate (Ser) (covalent) #status predicted F;106-138/Disulfide bonds: #status predicted
                                                                                                                                                                                                                               A; Molecule type: mRNA
A; Residues: 36-38, 'S', 40-78, 'A', 80-88, 'N', 90-114, 'Q', 116-123, 'D', 125-144, 'G', 145-173, A; Cross-references: EMBL:X77317; NID:g452607; PIDN:CAA54523.1; PID:g452608
C; Superfamily: tumor necrosis factor
                                                                                                                                                                                                                                                                                                                                                            A; Reference number: A; Accession: S41867
                                                                                                                                                                                                                                                                                                                                                                               submitted to the EMBL Data A; Reference number: S41867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tumor necrosis factor alpha precursor - goat (fragment)
N;Alternate names: cachectin; TNF alpha
C;Species: Capra aegagrus hircus (domestic goat)
C;Date: 28-Feb-1990 #sequence_revision 28-Feb-1990 #tex
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: mRNA
A; Residues: 1-193 <GOL>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C; Accession: S06192; S41867 R; Goldstein, I.M.; Henner,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Title: Genome sequence of Yersinia pestis, the causative A; Reference number: AB0001; MUID:21470413; PMID:11586360 A; Accession: AH0060
                                                                                                                                                                                                                                                                                                                                       A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                R;Rimstad,
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A; Accession: S06192
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Cross-references: GB:AL590842;
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A; Residues: 1-289 < KUR>
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Best Local
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140 RETPE-AEAKPWY
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                                          2 KDTPEGAELKPWY
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151
                                        14
                                                                                                       57.7%;
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66.7%;
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                                                                                                       Score 48.5;
Pred. No. 2
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Pred. No.
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te genome sequence of the lactic acid A86625; MUID:21235186; PMID:11337471

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Mauger, S.; Jaillon,

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Weissenbach, Lactococcus

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Search completed: April 4, 2003, 08:42:57 Job time: 11.1613 secs
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R;HAhn, C.S.; Lustig, S.; Strauss, E.G.; Strauss, J.H.
Proc. Natl. Acad. Sci. U.S.A. 85, 5997-6001, 1988
A;Title: Western equine encephalitis virus is a recombinant virus.
A;Reference number: A35587; MUID:88320369; PMID:3413072
A;Accession: A35587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            structural polyprotein - western equine encephalomyelitis virus (strain BFS1703)
N;Contains: 6K protein; coat protein C; membrane glycoprotein E1; membrane glycoprotein
C;Species: western equine encephalomyelitis virus
C;Date: 31-Mar-1991 #sequence_revision 31-Mar-1991 #text_change 16-Jul-1999
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A;Restidues: 1-1649 <STO>
A;Cross-references: GB:AE005176; PID:g12724583; PIDN:AAK05677.1; GSPDB:GN00146
A;Experimental source: strain IL1403
C;Genetics:
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A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                  7758-775/Domain: transmembrane *status predicted <TN3>
7777-793/Domain: transmembrane *status predicted <TN4>
7797-793/Pomain: transmembrane *status predicted <MG1>
798-1236/Product: membrane glycoprotein El *status predicted <MG1>
71206-1227/Domain: transmembrane *status predicted <TN5>
750,270,515,637,724,936,1042/Binding site: carbohydrate (Asn) (covalent) *status predicted <TN5>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Superfamily: togavirus structural polyprotein (Scross references: GB:J03854; NID:g323738; PIDN:AAAA2999.1; PID:g323730 (Scross references: GB:J03854; NID:g323738; PIDN:AAAA2999.1; PID:g323730 (Superfamily: togavirus structural polyprotein; transmembrane protein; Keywords: coat protein; glycoprotein; polyprotein; transmembrane protein; 1-259/Product: coat protein CB status predicted <CPC>
"260-319/Product: membrane glycoprotein E3 status predicted <MG3>
"320-742/Product: membrane glycoprotein E3 status predicted <MG2>
"584-702/Domain: transmembrane status predicted <TN1>
"719-737/Domain: transmembrane status predicted <TN2>
"719-737/Product: 6K protein status predicted <K6P>
"719-737/Product: 6K protein status predicted <K6P>
"719-737/Product: 6K protein status predicted <K6P>
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Best Local :
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Mismatches
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Perfect score:
Sequence:
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No.
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Maximum Match 100%
Listing first 45 summaries
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   protein search, using sw model
  Match
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Gapop 10.0 , Gapext 0.
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  GenCore version 5.1.4_p5_4578 (c) 1993 - 2003 Compugen Ltd.
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Q9bea1 tursiops tr P13296 capra hircu O35734 marmota mon P51742 canis famil
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             1 homo sapien
7 homo sapien
0 klebsiella
2 mus musculu
3 homo sapien
0 homo sapien
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5 mus musculu
7 western equ
8 eastern equ
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9 bos taurus
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	Q8xa15 escherichia		P44751 haemophilus			Q23381 caenorhabdi			Q05019 chironomus			Q06536 chromatium	

ALIGNMENTS

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micc. , khim. 13:701-705(1987). [6]	e nucleotide sequence of the genome copy of TNF	pasov S.A.; of genes coding	=87298		eukaryotic expression."; Nicleic acids Res 13:4417-4479(1985)	cloning of mor	к., van Heuverswyn н., van	er R., Marmenout A., Tavernier J., van der Heyder	SEQUENCE FROM N.A. MEDLINE=85242112; PubMed=2989794;		Proc. Natl. Acad. Sci. U.S.A. 83:1670-1674(1986).	ted region of mRNA molecules specifying	"Identification of a common nucleotide sequence in the	Beutler		SEQUENCE FROM N.A.	Proc. Nati. Acad. Sci. U.S.A. 82:6060-6064(1985).	necrosis factor.";		Goeddel D V :	95298296; PubMed=3898078;	SEQUENCE FROM N.A.	[2]	or necrosis factor.";	ichia coli of the gene	Shirai T., Shimizu N., Shioliri S., Horiquchi S., Ito H.:	MEDDIINE=88224564: PubMed=2836146:		D=10090;	Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.	Obordata: Oraniata: Vortobrata:	OR	ligand superfamily member 2) (Cachectin).		(Rel. 10, Last	01-JAN-1988 (Rel. 06, Created)	y	MOUSE

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X-RAY CRYSTALLOGRAPHY (1.4 ANGSTROMS) OF 80-235.

X-RAY CRYSTALLOGRAPHY (1.4 ANGSTROMS) OF 80-235.

MEDLINE-99190964; PubMed=10089307;

Baeyens K.J., De Bondt H.L., Raeymäekers A., Fiers W., De Ranter C.J.;

The structure of mouse tumour-necrosis factor at 1.4 A resolution:

The structure of mouse tumour-necrosis factor at 1.4 A resolution:

The structure of mouse tumour-necrosis factor at 1.4 A resolution:

The structure of mouse tumour-necrosis factor at 1.4 A resolution:

The structure of mouse tumour-necrosis factor at 1.4 A resolution:

THE STRUCTION: Cytckine that binds to TMFRSFIA/TMFR1 and

TMRRSFIB/TMFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and 1s implicated in the induction of cachexia, Under certain conditions it can stimulate cell

THE STRUCTION OF THE STRUCTURE OF 
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"A novel form of TNF/cachectin is a cell surface cyt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Characterization of heavy murine tumor necrosis factor.";
murine tumor necrosis factor.";
nianhya Res. Commun. 173:1072-1078(1990).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rowen L., Qin S., Madan A., Abbasi N., James R., Dickhoff R., Shaffer T., Ratcliffe A., Loretz C., Lasky S., Hood L.; "Sequence of the mouse major histocompatibility class III region."; "Sequence of the mouse major histocompatibility class III region."; "Submitted (OCT-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IDENTIFICATION OF MEMBRANE-BOUND MEDLINE-88165056; PubMed-3349526
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MEDLINE-91097531;
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MEDLINE-96013654; PubMed-7560085;
Ikegami H., Makino S., Yamato E.,
Takekawa K., Ogihara T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Alternative cleavage of the cachectin/tumor necrosis factor propeptide results in a larger, inactive form of secreted propersion. 264:16256-16260(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Immunogenetics 45:459-461(1997).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. MEDLINE=88067722; PubMed=3684584;
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PTM: The membrar phosphorylated of membrane form of
                                                                    PTM: THE SOLUBLE FORM DERIVES FROM T
PROTEOLYTIC PROCESSING.
PTM: The membrane form, but not the
                                                                                                                                                                                      proliferation and induce cell differentiation.
SUBUNIT: Homotrimer.
SUBCELLULAR LOCATION: TYPE II MEMBRANE PROTEIN
EXTRACELLULAR SOLUBLE FORM.
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z X., Defay K.,
on serine residues.
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M., Zentella A., Cerami A.;
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Dephosphorylation of the soluble TNFRSF1A/TNFR1
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VARIANT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SMART; SM00207; TNF; 1.

PROSITE; PS00251; TNF_1; 1.

PROSITE; PS50049; TNF_2; 1.

Cytokine; Cytotoxin; Transmembrane; Glycoprotein;
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InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         use by non-profit institutions as long as modified and this statement is not removed. U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          between
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                                               1 PKDTPEGAELKPWY
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DISEASE: CACHEXIA ACCOMPANIES A VARIETY OF DISEASES, INC CANCER AND INVECTION, AND IS CHARACTERIZED BY GENERAL II AND MALNUTRITION.

SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     M20155; AAA40462.1; M11731; AAA40458.1; M13049; AAA40457.1; X02611; CAA26457.1; X02611; CAA26457.1; X02611; CAA26459.1; X00467; CAA68530.1; X00467; CAA68530.1; X00467; BAA19594.1; X06950; BAA19512.1; X06950; BAA19512.1; X106950; BAA19513.1; X106950; BAA195150; AA19500; BAA195150; AA19500; BAA195150; AA
PKDTPEGAELKPWY
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S03791; S03791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A22908; A22908.
A25164; A25164.
A27303; A27303.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A23127; QWMSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SWISS-PROT entry is copyright. It is produced through een the Swiss Institute of Bioinformatics and the EM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2TNF;
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BAA19513.
BAA19513.
AAB65593.
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G -> R (
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SIGNAL-ANCHOR (TYPE-II MEMBRANE PROT
                                                                                                                                                                                                                                                                     N-LINKED (GLCNAC I -> T (IN STRAI) T -> A (IN STRAI)
                                                                                                                                                                                                                                                                                                                                                                           PHOSPHORYLATION (BY CK1)
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-> A (IN STRAINS BALB/C
ISSING (IN REF. 8).
-> R (IN REF. 3 AND 4).
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                                                                                              Mismatches
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                                                                                              Indels
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C57BL/6)
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P16599;
Ol-AUG-1990 (Rel. 15, Created)
Ol-AUG-1990 (Rel. 15, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
15-JUN-2002 (Rel. 41, Cachectin).
                                                                                                                                                                                                                                Submitted (JUN-1993) to the EMBL/GenBank/DDBJ databases. FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages induce cell death of certain tumor cell lines. It is
    <del>:</del>
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                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. Decker K.F.;
                                                                                                                                                                                                                                                                                                                                                                                                     autoimmune disease susceptible and resistant inbred rat strains.";
Genes Immun. 2:229-232(2001).
                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 1-231 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                Submitted (OCT-1997) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                             Furuya T., Joe B., Salstrom J.L., Hashiramoto
Wilder R.L., Remmers E.F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-21369712; PubMed-11477479;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Biol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Agric. Biol. Chem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Cloning and expression necrosis factor.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Shirai T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Kwon J., Chung I.Y., Benveniste
"Cloning and sequence analysis
factor-encoding genes.";
Gene 132:227-236(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
Rat
                                                                                                                                                                                                                                                                                                        TISSUE-Tail
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN=Various;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Estler H.C., Grewe M., Gaussling R., Pavlovic M., 
"Rat tumor necrosis factor-alpha. Transcription if 
and in vitro posttranslational processing based of 
CONA.".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
MEDLINE-92329007; PubMed-1627266;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-Sprague-Dawley; TISSUE-Tes
MEDLINE-94040766; PubMed-8224868;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rattus norvegicus (Rat).
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                                                                                                                                                                                                                                                                                                                                                                                                                          Polymorphisms of the tumor necrosis factor alpha locus among
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                    proliferation and induce cell differentiation.
SUBGUNIT: Homotrimer (By similarity).
SUBCELLULAR LOCATION: Type II membrane protein. Also exists as extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane form by
                                                             proteclytic processing (By similarity).

PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form occurs by binding to soluble TNFRSF1A/TNFR1
                                          Similarity)
DISEASE: CA
                                                        PTM: The membrane form, but membrane form, but phosphorylated on serine residues.
                                                                                                                                                                                        pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction cachezia, Under certain conditions it can stimulate cell
                          CANCER AND INFECTION,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chem. Hoppe-Seyler
              MALNUTRITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Shimizu N.,
                          CACHEXIA ACCOMPANIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     53:1733-1736(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Benveniste
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  TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                in Escherichia coli of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            373:271-281(1992).
THE TUMOR NECROSIS FACTOR FAMILY
                                                                                                                                                                                                                                                                                                                                               EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Craniata; Vertebrata; Sciurognathi; Muridae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             e E.N.;
of the rat tumor necrosis
                          S A VARIETY OF
CHARACTERIZED
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        Α.,
                         DISEASES, INCLUDING BY GENERAL ILL HEAL'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in rat Kupffer on a PCR-derive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Decker K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dobbins D.E.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PCR-derived
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                          HEALTH
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                                                                                                                                                                                                                                                    Best
                                                                                                                                                                                                                                                                                                CONFLICT
                                                                          01-JUN-1994 (Rel. 29, Created)
01-JUN-1994 (Rel. 29, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (
                     Mammalia; Eutheria;
                                                      ligand superfamily member TNF OR TNFSF2 OR TNFA.
                                                                                                                          P36939;
                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                   SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                  Signal-anchor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PIR; JU0029; JU0029.
PIR; S21674; S21674.
PIR; JN0868; JN0868.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL;
                               Eukaryota; Metazoa;
                                           Peromyscus leucopus
                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          InterPro; IPR003636;
InterPro; IPR000478;
Pfam; PF00229; TNF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; X66539; CAA47146.1; -. EMBL; L00981; AAA16275.1; -. EMBL; D00475; BAA00367.1; -.
NCBI_TaxID=10041;
                                                                                                                                    INFA_PERLE
                                                                                                                                                                                                                                                                                                                       CONFLICT
                                                                                                                                                                                                                                                                                                                                              DISULFID
                                                                                                                                                                                                                                                                                                                                                       MOD_RES
                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                    TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                           CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cytokine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HSSP; P06804;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaborabetween the Swiss Institute of Bioinformatics and the EMBL outstat. the European Bioinformatics Institute. There are no restrictions on
                                                                                                                                                                                             180
                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                      1 PKDTPEGAELKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       L; AJ002278; CAA05290.1; -.
L; L19123; AAA42255.1; -.
L; AF322982; AAK53568.1; -.
L; AF329983; AAK53569.1; -.
L; AF329984; AAK53570.1; -.
L; AF329985; AAK53571.1; -.
L; AF329986; AAK53571.1; -.
L; AF329987; AAK53573.1; -.
                                                                                                                                                                                            PKDTPEGAELKPWY 193
                                                                                                                                                                                                                                       14;
                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               non-profit
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cytotoxin;
                                                                                                                                                                                                                                                                                    57
79
2
148
86
86
39
39
163
202
235 AA;
                                                                                                                                                                                                                                        Conservative
                                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                                                235
80
179
179
163
202
                                                                                                                                                                                                                                                                                                                                                                                                  235
355
565
                     Chordata;
Rođentia;
                                                                                                                                                                                                                 14
                                           (White-footed mouse)
                                                                                                                                                                                                                                                                                    25806 MW;
                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Transmembrane; Glycoprotein; Phosphorylation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             institutions as long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TNF_abc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TNF_family.
                                                                 2)
                                                                                                                                                                                                                                                                                                                              (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

CLEAVAGE (BY ADAM17) (BY SIMIL.

PHOSPHORYLATION (BY CK1) (BY S.

BY SIMILARITY.

N-LINKED (GLCNAC...) (POTENT
                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                             I -> P (IN REF. 3
I -> T (IN REF. 3
F -> S (IN REF. 3
                                                                 (Cachectin).
                                                                                                                                                                                                                                                                                                                                                                                                 TUMOR NECROSIS FACTOR,
TUMOR NECROSIS FACTOR,
CYTOPLASMIC (POTENTIAL)
SIGNAL-ANCHOR (TYPE-II
                   Sciurognathi;
                               Craniata; Vertebrata; Euteleostomi;
                                                                                                                                    PRT;
                                                                                                                                                                                                                                                    Pred.
                                                                                                                                                                                                                                                              Score 84;
                                                                                                                                                                                                                                                                                    B808EC6D049C2F3B CRC64;
                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                    N
O
                                                                                                                                    235
                                                                                                                                                                                                                                                  2.1e-06;
                                                                                                                                    Ā
                                                                                                                                                                                                                                                               DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             as its content
                                                                            (Tumor necrosis factor
                     Muridae;
                                                                                                                                                                                                                                                                                              3 AND 5).
3 AND 5).
                                                                                                                                                                                                                                                            Length 235;
                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                 MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                        SOLUBLE FORM
                                                                                                                                                                                                                                                                                                                                                                                                                                   MEMBRANE FORM
                     Sigmodontinae;
                                                                                                                                                                                                                                                                                                                                                                  SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL outstation
                                                                                                                                                                                                                                                                                                                                                       SIMILARITY).
                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    collaboration
L outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12
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TNFA_CAVPO
ID TNFA_C
AC P51435
                                                                                                                                                                                                                                                                                                              SAN AND DESCRIPTION OF THE AND DESCRIPTION OF
                                                                                                                                                                             δõ
                                                                                                                                    В
                                                                  RESULT 4
                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                   MOD_RES
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TNFA_CAVPO P51435;
                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the European Bioinformatics Institute. There are no rest use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRINTS; PR01234; TNECROSISFCT. ProDom; PD002012; TNF_abc; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           InterPro; IPR003636; TNF_abc. InterPro; IPR000478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; M59233; AAA40596.1; -. HSSP; P06804; ZTNF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Peromyscus leucopus (family Cricetidae).", Immunogenetics 35:351-353(1992).
-!- FUNCTION: Cytokine that binds to TNFRS
                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Signal-anchor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SMART; SM00207;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE-92218012; PubMed-1348497;
Crew M.D., Filipowsky M.E.;
                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Sequence of the tumor necrosis factor/cachectin (TNF)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                               Local
                                                                                                                                                                          1 PKDTPEGAELKPWY 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages induce cell death of certain tumor cell lines. It is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISEASE: CACHEXIA ACCOMPANIES A VARIETY OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AND MALNUTRITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CANCER AND INFECTION, AND IS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           similarity)
                                                                                                                                 PKETPEGSELKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                                                        l Similarity
12; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cytotoxin;
                                                                                                                                                                                                                                                                                                          57
79
2
148
86
235 AA;
                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  80
36
                    STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TNF;
                                                                                                                                                                                                                                                                                                                                                       235
80
2
179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                235
35
56
                                                                                                                                                                                                                                                                                                            86
25822 MW;
                                                                                                                                                                                                                                        91.7%;
85.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Transmembrane;
                                                                                                                                                                                                                      <u>ب</u>
                                                                                                                                                                                                                                          Pred.
                                                                                                                                                                                                                                                            Score 77;
                                                                                                                                                                                                                                                                                                          N-LINKED (GLCNAC. . .) (P
235A5CFC9F9AC624 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                CYTOPLASMIC (POTENTIAL) SIGNAL-ANCHOR (TYPE-II
                                                                                                                                                                                                                                                                                                                                                     BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                          CLEAVAGE (BY ADAM17) (BY SIM) PHOSPHORYLATION (BY CK1) (BY
                                                                                                                                                                                                                                                                                                                                                                                                EXTRACELLULAR (POTENTIAL). CLEAVAGE (BY ADAM17) (BY S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TUMOR NECROSIS FACTOR, MEMBRANE FORM.
TUMOR NECROSIS FACTOR, SOLUBLE FORM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                (POTENTIAL)
                    PRT;
                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CHARACTERIZED
                                                                                                                                                                                                                                            No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Glycoprotein; Phosphorylation;
                    234
                                                                                                                                                                                                                                        DB 1;
2.8e-05;
                    A
                                                                                                                                                                                                                                                               Length 235;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BY GENERAL ILL HEALTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISEASES, INCLUDING
                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            restrictions
                                                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY)
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SITE
MOD_RES
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                                                                                                                                                                                                                                                                                                              PRINTS; PR01234; TNECROSISFCT. ProDom; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; U39839; AAB06492.1; -. EMBL; U77036; AAB19210.1; -. HSSP; P06804; 2TNF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                factor-alpha.";
Am. J. Physiol. 273:L524-L530(1997).
-:- FUNCTION: Cytokine that binds to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN=Dunkin-Hartley;
MEDLINE=97462215; PubMed=9316485;
White A.M., Yoshimura T., Smith A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cavia porcellus (Guinea pig).
Eukaryota; Metazoa; Chordata; Craniata; Verteb
Mammalia; Eutheria; Rodentia; Hystricognathi;
NCBI_TaxID-10141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-OCT-1996 (Rel. 34, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-OCT-1996 (Rel. 34, 01-OCT-1996 (Rel. 34, 15-JUN-2002 (Rel. 41,
DISULFID
                                                                             DOMAIN
                                                                                                                                                                                      CHAIN
                                                                                                                                                                                                              CHAIN
                                                                                                                                                                                                                                                              PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                               Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entities requires a
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           White A.M., Yoshimura T., Smith A.W., Westwick J., "Airway inflammation induced by recombinant guinea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (NOV-1995) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-Hartley; TI:
Yuan H.T., Kelly F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ligand superfamily member 2) (Cachectin). TNF OR TNFSF2 OR TNFA.
                                                                                                                                   TRANSMEM
                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                   Cytokine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 similarity).
DISEASE: CACHEXIA ACCOMPANIES
CANCER AND INFECTION, AND IS C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               proliferation and induce cell differentiation.
SUBJUNT: Homotrimer (By similarity).
SUBJULTAR LOCATION: Type II membrane protein. Also exists
extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane form by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        European Bioinformatics Institute. The by non-profit institutions as long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            proteolytic processing (By similarity).

PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFRSF1B/TNFBR. It is mainly secreted by macrophages and call induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction cachexia, Under certain conditions it can stimulate cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MALNUTRITION
                                                                                                                                                                                                                                      Cytotoxin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE-Lung
                        234
80
2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                        Transmembrane: Phosphorylation: Signal anchor.
34 TUMOR NECROSIS FACTOR, MEMBRANE FORM.
35 TUMOR NECROSIS FACTOR, SOLUBLE FORM.
36 CYTOPLASMIC (POTENTIAL).
56 SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTE).
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EXTRACELLULAR (POTENTIAL)
CLEAVAGE (BY ADAM17) (BY :
PHOSPHORYLATION (BY CK1)
BY SIMILARITY.
                                                                                                     (POTENTIAL)
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CHARACTERIZED
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ng as its content is in no
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BY GENERAL
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pig tumor necrosis
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                                                                                                                             MEMBRANE PROTEIN)
                                                  SIMILARITY)
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        "Porcine tumor necrosis factor alpha: cloning with the polymerase chain reaction and determination of the nucleotide sequence."; Gene 81:185-191(1989).

-i- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation.

C -i- SUBCELLULAR LOCATION: Type II membrane protein. Also exists as extracellular soluble form (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE-91016861; PubMed-2216741;
MEDLINE-91016861; Prestwood A.K.,
Drews R.T., Coffee B.W., Prestwood A.K.,
"Gene sequence of porcine tumor necrosis"
"Gene sequence of porcine tumor necrosis"
"Ands Res. 18:5564-5564(1990).
                                                                                                                                                                                                                                                                                           STRAIN-Large white; TISSUE-Fibroblast; MEDLINE-21108615; PubMed-11169259; Chardon P., Rogel-Gaillard C., Cattoli
                                                                                                                                                                                                                                                                                                                                                           necrosis factor-alpha.";
Anim. Biotechnol. 2:97-105(1991).
                                                                                                                                                                                                                                                                                                                                                                                     "Complete nucleotide sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kuhnert P., Wuethrich C., Pe
"The porcine tumor necrosis
comparative analysis.";
Gene 102:171-178(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1991 (Rel. 20, Created)
01-NOV-1991 (Rel. 20, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis
ligand superfamily member 2) (Cachectin).
                                                                                                                                                                                     Pauli U., Beutler B., Peterhans E.;
                                                                                                                                                                                                    SEQUENCE OF 44-232 FROM N.A.
MEDLINE-90034181; PubMed-2478420;
                                                                                                                                                                                                                                      "Sequence of the swine major histocompatibility complex region containing all non-classical class I genes."; Tissue Antigens 57:55-65(2001).
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  (By similarity)
es from the men
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sequence.";
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Best Local S
Matches 10
                               15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tun
1igand superfamily member 2) (Cachectin).
TNF OR TNFA.
Delphinapterus leucas (Beluga whale).
Eukaryota; Metazoa; Chordata; Craniata; Vertebra
Mammalia; Butheria; Cetartiodactyla; Cetacea; Oc
Monodontidae; Delphinapterus.
NCBL_TaxID=9749;
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PIR; S17290; S17290.
PIR; S18965; S18965.
HSSP; P01375; 4TSV.
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or send a
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SITE
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SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ---
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InterPro; IPR000478;
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European Bioinformatics Institute. The by non-profit institutions as long
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DISEASE: CACHEXIA ACCOCANCER AND INFECTION,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      proteolytic processing (By similarity).
PTM: The membrane form, but not the sol phosphorylated on serine residues. Deph membrane form ocurrs by binding to solu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                   RETPEGAEAKPWY 190
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X54859; CAA38639.1; -.
X57321; CAA40591.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
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                                                                                                                                                                                                                                                                                                         STANDARD;
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232
56
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TUMOR NECROSIS FACTOR, MEMBRANE FORM.

TUMOR NECROSIS FACTOR, SOLUBLE FORM.

TOPLOSMIC (POTENTIAL).

SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25254 MW;
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76.98;
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Pred. No.
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BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (POTENTIAL)
                                                                                                     Craniata; Vertebrata; Euteleostomi;
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Dephosphorylation of the soluble TNFRSF1A/TNFR1
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                                                                                                                                                                                             (Tumor necrosis
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01-NOV-1990 (Rel. 16, Creat 01-NOV-1990 (Rel. 16, Last 15-JUN-2002 (Rel. 41, Last Tumor necrosis factor preculigand superfamily member 2
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P19101;
01-NOV-1990
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-!- SUBCHLIULAR LOCATION: Type II membrane protein. Also exists as an extracellular soluble form (By similarity).

-!- PTM: The soluble form (By similarity).

-!- PTM: The soluble form (By similarity).

-!- PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1 (By similarity).
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precursor (TNF-alpha) (Tumor necrosis
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  (Cachectin).
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CYTOPLASMIC (POTENTIAL)
SIGNAL-ANCHOR (TYPE-II
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=91016860; PubMed=2216740;
MCGTAW R.A., Coffee B.W., Otto C.M., Drews R.T., Rawlings C.A.;
"Gene sequence of feline tumor necrosis factor alpha.";
Nucleic Acids Res. 18:5563-5563(1990).
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Felis silvestris catus (Cat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Felidae; Felis.
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SUBGUNIT: Homotrimer (By similarity).

SUBCELLULAR LOCATION: Type II membrane protein. Also exists as extracellular soluble form (By similarity).
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PTM: The membrane form, but not the soluble form,
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33 TUMOR NECROSIS FACTOR, 1
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MEDLINE-87217060; PubMed-35559/4;
Nedospasov S.A., Shakhov A.N., Turetskaya R.L., Mett V.A.,
Azizov M.M., Georgiev G.P., Korobko V.G., Dobrynin V.N.,
Filippov S.A., Bystrov N.S., Boldyreva E.F., Chuvpilo S.A.
Chumakov A.M., Shingarova L.N., Ovchinnikov Y.A.;
"Tandem arrangement of genes coding for tumor necrosis fac
alpha) and lymphotoxin (TNF-beta) in the human genome.";
Cold Spring Harb. Symp. Quant. Biol. 51:611-624(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
          Marmenout A., Fransen L., Tavernier J., v
Kawashima E., Shaw A., Johnson M.J., Semc
Ruysschaert M.R., van Vliet A., Fiers W.;
                                                                                                       Wang A.M., Creasey A.A., Ladner M.B., van Arsdell J.N., Yamamoto R., Mark D. "Molecular cloning of the complementar
                                                                                                                                                                                          Nedwin G.E., Naylor S.L., Sakaguchi A.Y., Smi
Jarrett-Nedwin J., Pennica D., Goeddel D.V.,
"Human lymphotoxin and tumor necrosis factor
homology and chromosomal localization.";
                                                                                                                                                                                                                                                                                              Shirai T., Yamaguchi H., Ito H., Todd (
"Cloning and expression in Escherichia tumour necrosis factor.";
                                                                                                                                                                                                                                                                                                                                                                                           Pennica D., Nedwin G.E., Hayflick
Palladino M.A., Kohr W.J., Aggarwa
"Human tumour necrosis factor: pre
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                                              MEDLINE=86030296; PubMed=3932069;
                                                            SEQUENCE FROM
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                                                                                                                                              MEDLINE-85142190; PubMed-3856324;
                                                                                                                                                          SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                            SEQUENCE FROM
                                                                                                                                                                                                                                                                                   Nature 313:803-806(1985).
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Nature 312:724-729(1984).
                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=85086244; PubMed=6392892;
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expression of human tumor
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, Aggarwal B.B.,
ctor: precursor s
                                                                                                     o R., Mark D.F. complementary
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ADDASI N., Dickhoff R., L. Lasky S., Hood L.;

"Sequence of the human materials of the huma
       CLEAVAGE BY ADAM17.

MEDLINB-97186575; PubMed-9034191;

MOSS M.L., Jin S.-L.C., Milla M.E., Burkhart W., Carter H.L.,

MOSS M.L., Jin S.-L.C., Milla M.E., Hassler D., Hoffman C.R.

Chen W.-J., Clay W.C., Didsbury J.R., Hassler D., Hoffman C.R.

Kost T.A., Lambert M.H., Leesnitzer M.A., McCauley P., McGeeha

Mitchell J., Moyer M., Pahel G., Rocque W., Overton L.K., Scho

Mitchell J., Moyer M., Pahel G., Becherer J.D.,

Seaton T., Su J.-L., Warner J., Willard D., Becherer J.D.;
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Shiina S.
                                                                                                                                                                                                                                                                                               Ostade X.V., Tavernier J., Prange T., Fiers "Localization of the active site of human tu (hTNF) by mutational analysis.";
EMBO J. 10:827-836(1991).
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J. Inflamm. 45:152-160(1995).
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"A casein kinase I motif present in the cytoplasmic
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of a disintegrin metalloproteinase
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Med. 176:1053-1062(1992).
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the EMBL/GenBank,
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Kim Y.J., Hahn J.H., Oh B.H.;
"High resolution crystal structure of a human tumor necrosis factor-
alpha mutant with low systemic toxicity.";
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-I- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can
induce cell death of certain tumor cell lines. It is potent
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"The structure of tumour necrosis factor -- implications for biological function.";
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MEDLINE-91193276; PubMed-1964681;
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Nature 338:225-228(1989).
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Nature 385:733-736(1997).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (-RAY CRYSTALLOGRAPHY (1.8 ANGSTROMS) OF MUTANT M3S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19
                                               Local
2 KDTPEGAELKPWY 14
                                                                                                                                                                                  s SWISS-PROT entry is copyright. It is produced through a collar ween the Swiss Institute of Bioinformatics and the EMBL outst European Bioinformatics Institute. There are no restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Biol.
                                                                                                                                                                                                                                                  SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY
                                                                                                                                                                                                                                                                                phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1. DISEASE: CACHEXIA ACCOMPANIES A VARIETY OF DISEASES, INCLUD: CANCER AND INFECTION, AND IS CHARACTERIZED BY GENERAL ILL H
                                                                                                                                                                                                                                                                                                                                            PTM: THE SOLUBLE FORM DERIVES FROM THE MEMBRANE FORM PROTEOLYTIC PROCESSING.
PTM: The membrane form, but not the soluble form, is
                                                                                                                                                                                                                                                                                                                                                                                                            proliferation and induce cell differentiation. SUBUNIT: Homotrimer. SUBCELLULAR LOCATION: TYPE II MEMBRANE PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                 EXTRACELLULAR SOLUBLE FORM
                                                                                                                                                                                                                                                                                                                                                                                                                                                             pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction cachexia, Under certain conditions it can stimulate cell
                                                                                             X02910; CAA26669.1;
                                                                                                                       s requires a license agreement (See http://www.isb-sib.ch/announce/an email to license@isb-sib.ch).
                                             Similarity
                                                                                                                                                                                                                                                                         MALNUTRITION
                                                                                                                                         non-profit institutions as long and this statement is not removed. requires a license agreement (See
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Fu Z.Q.,
                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            for receptor binding.";
n. 264:17595-17605(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            of tumor necrosis factor-alpha at 2.6-A resolution. or receptor binding.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PubMed=9442056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PubMed=9488135;
Wu J., Xue Y.N.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PubMed=2551905;
                                            77.48;
76.98;
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                             2;
                                             Score 65; DB 1;
Pred. No. 0.0024;
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                             Mismatches
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                                                                                                                                                                                                                                                  PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF00229; TNF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; AB000513; BAA19131.1; -. HSSP; P01375; 4TSV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          use by non-profit institutions as long modified and this statement is not removed.
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                                                                                                                             TRANSMEN
                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                              Cytokine; Cytotoxin;
                                                                                                                                                                                                                                                                                                                                                                                                 InterPro; IPR000478;
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Bu
Mammalia; Eutheria; Primates; Catarrhini; Cercopithec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ligand superfamily member 2) (Cachectin). TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR003636; TNF_abc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE=Lymphocytes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ratsumi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cercopithecinae; Macaca.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-JUL-1998 (Rel. 36, Created)
15-JUL-1998 (Rel. 36, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation.
SUBUNIT: Homotrimer (By similarity).
SUBCELLULAR LOCATION: Type II membrane protein. Also exists extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane form by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            s SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the Exeuropean Bioinformatics Institute. There are no restroy by non-profit institutions as long as its content
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SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       proteolytic processing (By similarity).

PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSFIA/TNFRI (1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages and car induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of the control of the control
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                                                                                                                     Transmembrane: Phosphorylation: Signal-anchor
33 TUMOR NECROSIS FACTOR, MEMBRANE FORM.
33 TUMOR NECROSIS FACTOR, SOLUBLE FORM.
35 CYTOPLASMIC (POTENTIAL).
36 CYTOPLASMIC (POTENTIAL).
37 CYTOPLASMIC (POTENTIAL).
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(POTENTIAL).

EXTRACELLULAR, (POTENTIAL).

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BY SIMILARITY.
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PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
Cytokine; Cytotoxin; Transmembrane; Phosphorylation; Signal-anchor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Macaca mulatta (Rhesus macaque).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor ligand superfamily member 2) (Cachectin).
TNF OR TNFSE2 OR TNFA.
                                                    ProDom; PD002012; TNF_abc; SMART; SM00207; TNF; 1.
                                                                                  InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_famil
Pfam; PF00229; TNF; 1.
PRINTS; PR01234; TNECROSISFCT
                                                                                                                                                                                                                                    the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed.
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                                                                                                                                                    EMBL; U19850; AAA86712.1; ...
HSSP; P01375; 4TSV.
                                                                                                                                                                                                    entities requires a license agreement (See http://www.isb-sib.ch/announce/
or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Comparative sequence analysis nonhuman primates.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=96003435; PubMed=7561102;
Villinger F.J., Brar S.S., Mayne
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation.

SUBUNIT: Homotrimer (By similarity).

SUBCELLULAR LOCATION: Type II membrane protein. Also exists as extracellular soluble form (By similarity).

PTM: The soluble form derives from the membrane form by
                                                                                                                                                                                                                                                                                                                                                                                                                                              proteolytic processing (By similarity).
PTM: The membrane form, but not the soluble form,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent
                                                                                                                                                                                                                                                                                                                                  SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                 DISEASE: CACHEXIA ACCOMPANIES A VARIETY OF DISEASES, INCLUDING CANCER AND INFECTION, AND IS CHARACTERIZED BY GENERAL ILL HEAL
                                                                                                                                                                                                                                                                                                                                                                                                   similarity)
                                                                                                                                                                                                                                                                                                                                                                                                              phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1 (By
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                                                                                                                                                                                                                                                                                 SWISS-PROT entry is copyright. It is produced through
een the Swiss Institute of Bioinformatics and the EN
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76.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 65; DB Pred. No. 0.00 2; Mismatches
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                                                                                                                                                                                                                                Usage
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                                                                                                                                                                                                                                                                  restrictions
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                                                                                                                                                                                                                                                                                     collaboration
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Best Local
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DISULFID
SEQUENCE
                                         or send an email to license@isb-sib.ch).
                                                        entities requires a license agreement
                                                                    the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
MEDLINE=98147379; PubMed=9488055;
Haudek S.B., Redl H., Schlag G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cercopithecinae;
NCBI_TaxID=36229;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Papio hamadryas ursinus (Chacma baboon).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ligand superfamily member 2) (Cachectin). TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-DEC-1998 (Rel. 37, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
15-DEC-1998 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SITE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 KDTPEGAELKPWY
                                                                                                                                                                               Similarity).
DISEASE: CACHEXIA ACCOMPANIES A VARIETY OF CANCER AND INFECTION, AND IS CHARACTERIZED
                                                                                                                                                                                                                                                                                         proliferation and induce cell differentiation.
SUBUNIT: Homotrimer (By similarity).
SUBCELLULAR LOCATION: Type II membrane protein. Also exists
extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane form by
                                                                                                                                                            SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                               proteolytic processing (By similarity).
PTM: The membrane form, but not the soluble form,
phosphorylated on serine residues. Dephosphorylati
                                                                                                                                                                                                                                                                                                                                                                 INFRSF1B/TWFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell
                                                                                                                                                                                                                                                                                                                                                                                                                                          FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
                                                                                                                                                                         CANCER AND INFECTION, AND MALNUTRITION.
                                                                                                                                                                                                                                  membrane form ocurrs by binding
                                                                                                                                                                                                                                                                                                                                                                                                                              TNFRSF1B/TNFBR. It
                                                                                                             SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Immunol. 34:1041-1042(1997).
            AF019963; AAC31675.1;
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10; Conserv
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233 AA;
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233
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56
                                                                                   institutions as long as
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76.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence
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Pred. No. 0.0024;
2; Mismatches
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9F6F85050595FD59 CRC64;
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SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PHOSPHORYLATION (BY CK1) (BY SIMILARITY).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TUMOR NECROSIS FACTOR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  G1roir B.P.;
ce of baboon tumor necrosis factor
                                                                                                                                                                                                                                  es. Dephosphorylation of the to soluble TNFRSF1A/TNFR1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           233
                                                     (See http://www.isb-sib.
                                                                                               There are no restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                       Usage
                                                                                   its content
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                                                                                                                                                                                        DISEASES, INCLUDING BY GENERAL ILL HEAL'
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HSSP; P01375; 4TSV

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RESULT 12
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Best Local S
Matches 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P33620;
Ol-FEB-1994 (Rel. 28, Created)
Ol-FEB-1994 (Rel. 28, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (1)
11gand superfamily member 2) (Cachectin).
TNF OR TNFSF2 OR TNFA.
           modified and this statement is not removed entities requires a license agreement (See
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the European Bioinformatics Institute. The second of the s
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                                                                                                             between
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PROSITE; PS50049; TNF_2; 1.
Cytokine; Cytotox10; Transmembrane;
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                                                                                                                                                                 SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                  proliferation and induce cell differentiation.
SUBUNIT: Homotrimer (By similarity).
SUBCELLULAR LOCATION: Type II membrane protein. Al
extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane fo
proteolytic processing (By similarity).
PTM: The membrane form, but not the soluble form,
                                          SWISS-PROT entry is copyright. It is produced through a collaboration the Swiss Institute of Bioinformatics and the EMBL outstation een the Swiss Institute. There are no restrictions on it
                                                                                                                                                                                                            phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1 (
                                                                                                                                                                                                                                                                                                                                                                                                        pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachesia, Under certain conditions it can stimulate cell
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email to license@isb-sib.ch)
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Pred. No. 0.0024;
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CLEAVAGE (BY ADAM17) (BY SIM.
PHOSPHORYLATION (BY CK1) (BY
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SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mbrane; Phosphorylation; Signal-anchor TUMOR NECROSIS FACTOR, MEMBRANE FORM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Craniata; Vertebrata; Euteleostomi; Catarrhini; Cercopithecidae;
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             http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (Tumor necrosis factor
                                 Usage by
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Best Local
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                                                                                                                                                                                                                                                                                                             PubMed=1158773;
PubMed=1158773;
Shoji Y., Inoue Y., Sugisawa H., Itou T., Endo T., Sakai T.;
"Molecular cloning and functional characterization of bottlenose dolphin (Tursiops truncatus) tumor necrosis factor alpha.";
dolphin (Tursiops truncatus) tumor necrosis factor alpha.";
vet. Immunol. Immunopathol. 82:183-J92(2001).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last sequence up
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOD_RES
                                                <del>-</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tursiops truncatus (Atlantic bottle-nosed dolphin).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartiodactyla; Cetacea; Odont
                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
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SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
Cytokine; Cytotoxin; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=9739;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TNFA_TURTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; X62141; CANTEL PIR; S22052; S22052.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SMART; SM00207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ProDom;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRINTS; PR01234; TNECROSISFCT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        179 RETPEGAEAKPWY 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HSSP; P01375; 1A8M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 KDTPEGAELKPWY
                                         SUBUNIT: Homotrimer (By similarity).
SUBCELULAR LOCATION: Type II membrane protein.
extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane proteolytic processing (By similarity).
PTM: The membrane form, but not the soluble form
                                                                                                                                                                                                                                                                   . Immunol. Immunopathol. 82:183-192(2001). FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages induce cell death of certain tumor cell lines. It is
                                                                                                                                                                           pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation (By similarity)
  membrane form ocurrs by binding
                           phosphorylated on serine residues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         X62141; CAA44068.1;
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SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               145
233 AA;
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76.9%;
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PHOSPHORYLATION (BY CK1) (BY SIMILARITY).
MYRISTATE (BY SIMILARITY).
MYRISTATE (BY SIMILARITY).
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SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TUMOR NECROSIS FACTOR,
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es. Dephosphorylation of the to soluble TNFRSF1A/TNFR1 ()
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         233
                                              soluble form,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vertebrata; Euteleostomi;
tacea; Odontoceti; Delphinidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DΒ
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SQUITE TETT TETT
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Best Local Similarity
Watches 10; Conserva
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 RESULT 14
TNFA_CAPHI
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ROSITE;
Cytokine; C;
Signal-anchor.
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P13296; Q28320; Q9MYZ2;

O1-JAN-1990 (Rel. 13, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
17-mnor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor prediction).

11gand superfamily member 2) (Cachectin).

TNF OR TNFSF2 OR TNFA.

Capra hircus (Goat).
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOD_RES
                                                                                                       TISSUE-Splenocyte;
Takakura H., Mori Y., Ta
"Molecular cloning of ca
E.coli and insect cells.
                                                                                                                                                                                   Mammalia; Eutheria; Cetar
Bovidae; Caprinae; Capra.
NCBI_TaxID=9925;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the European Bioinformatics Institute.
use by non-profit institutions as 1 modified and this statement is not rem
                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eute. Mammalla; Eutheria; Cetartiodactyla; Ruminantia; Pecora;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               or send an email to license@isb-sib.ch).
SEQUENCE OF 44-234 FROM N.A. TISSUE-Ovarian follicle;
                                                                                            Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE; PS00251; INF_1; 1. PROSITE; PS50049; INF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR000478; 7
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entities requires a license agreement (See http://www.isb-sib.ch/announce,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     similarity).
-!- SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                      Submitted
                                                                  SEQUENCE OF
                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HSSP; P01375;
                                                                                                                                                                                                                                                                                                                                                                                                                 179 RETPEGAEAKPWY 191
                                                                                                                                                                                                                                                                                                                                                                                                                                         2 KDTPEGAELKPWY 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SWISS-PROT entry is copyright. It is produced through a collaboration en the Swiss Institute of Bioinformatics and the EMBL outstation -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cytotoxin;
                                      (MAR-1989)
                                                                                           (JUL-1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         233 AA;
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                                                               41-234 FROM N.A.
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1989) to
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25404 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 77.48;
76.98;
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                                                                                           to the
                                                                                                          Tatsumi M.; caprine TNF-alpha cDNA and its expression
                                      D., 1
                                                    Talhouk
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                                        EMBL/GenBank/DDBJ databases
                                                                                           EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 65; DB 1;
Pred. No. 0.0024;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EXTRACELLULAR (POTENTIAL).
CLEAVAGE (BY ADAM17) (BY SIMILARITY).
PHOSPHORYLATION (BY CK1) (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TUMOR NECROSIS FACTOR, MEMBRANE FORM.
TUMOR NECROSIS FACTOR, SOLUBLE FORM.
CYTOPLASMIC (POTENTIAL).
SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-LINKED (GLCNAC. . .) (POTENTIAL) 71CC39C699CC49D9 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Glycoprotein; Phosphorylation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 233;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                              Euteleostomi;
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Pfam; F. 1.

ProDom; PD002012, TNF; 1.

SMART; SM0207; TNF; 1.

PROSITE; PS00251; TNF_1; 1.

PROSITE; PS0026; TNF_2; 1.

Cytokine; Cytotoxin; Transmembrane; Phosphorylation; Signal TUMOR NECROSIS FACTOR, MEMBRANE FORM.

CHAIN 79 234 TUMOR NECROSIS FACTOR, MEMBRANE FORM.

CHAIN 1 35 CYTOPLASMIC (POTENTIAL).

SIGNAL-ANCHOR (TYPE-II MEMBRANE PROT SIGNAL-ANCHOR (TYPE-II MEMBRANE PROT MEMBRANE PR

Pfam; PF00229; TNF;

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N-LINKED (GLCNAC.

R -> S (IN REF. 4)
E -> A (IN REF. 4)
T -> N (IN REF. 4)
H -> O (IN REF. 4)
Y -> D (IN REF. 4)
Y -> EG (IN REF. 4)

PHOSPHORYLATION (BY CLEAVAGE (BY ADAM17)
BY SIMILARITY.

CK1) (BY SIMILARITY) (BY SIMILARITY).

MEMBRANE PROTEIN)

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (JUN-2000) [4]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; D86587; BAA13130.1; -.
EMBL; X14828; CAA32937.1; ALT_FRAME
EMBL; AF276985; AAF87741.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Exthe European Bioinformatics Institute. There are no resti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      +
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Submitted (JAN-1994) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; X77317; CAA54523.1; PIR; S06192; S06192. HSSP; P01375; 4TSV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <del>-</del>; -;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE OF 75-234 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Wang B., Zhang Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   proliferation and induce cell differentiation.
SUBUNIT: Homotrimer (By similarity).
SUBCELLULAR LOCATION: Type II membrane protein. Also exists
extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane form by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISEASE: CACHEXIA ACCCCANCER AND INFECTION,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    proteolytic processing (By similarity).

PTM: The membrane form, but not the Soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSFIA/TNFRI (By
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  frameshift in position 60.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY CAUTION: Ref.2 sequence differs from that shown due to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AND MALNUTRITION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INF alpha o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CACHEXIA ACCOMPANIES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the EMBL/GenBank/DDBJ databases
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISEASES, INCLUDING BY GENERAL ILL HEAL'
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RESULT 15
TNFA_MARMO
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use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                           ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
TISSUE-Peripheral blood;
MEDLINE-20184748; PubMed=10721723;
Li D.H., Havell E.A., Brown C.L., Cullen J.M.;
"Woodchuck lymphotoxin-alpha, -beta and tumor necrosis factor genes:
"Woodchuck lymphotoxin-alpha, beta and tumor necrosis factor genes:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TNFA_MARMO STANDARD; PRT; 233 AA. 035734; 035734; 15-JUL-1999 (Rel. 38, Created) 15-JUL-1999 (Rel. 38, Last sequence update) 15-JUN-2002 (Rel. 41, Last annotation update) 15-JUN-2002 (Rel. 41, Last annotation update) 15-JUN-2003 factor precursor (TNF-alpha) (Tumor necrosis factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zhou H., \operatorname{Hu}^{-}J., Seeger C.; Submitted (AUG-1998) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE-Peripheral blood;
MEDLINE-98139533; PubMed-9472070;
Lohrengel B., Lu M., Roggendorf M.;
"Molecular cloning of the woodchuck
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ligand superfamily member 2) (Cachectin).
TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                              structure, characterization and biological activity.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Marmota.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mammalia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-Peripheral blood;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Marmota monax (Woodchuck).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Immunogenetics 47:332-335(1998).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 KDTPEGAELKPWY 14
                                                                                                                                                      SIMILARITY).
DISEASE: CACCHEXIA ACCOMPANIES A VARIETY OF CANCER AND INFECTION, AND IS CHARACTERIZED
                                                                                                                           AND MALNUTRITION.
SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                   proteolytic processing (By similarity).

PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSFIA/TNFRI (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     77.48;
76.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 65; DB 1; Length 234; Pred. No. 0.0024;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Craniata; Vertebrata; Euteleostomi; Sciurognathi; Sciuridae; Sciurinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cytokines:
                                                                                                                                                             DISEASES, INCLUDING BY GENERAL ILL HEAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TNF-alpha, IFN-gamma
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                                      Query Match 73.8%;
Best Local Similarity 71.4%;
Matches 10; Conservative
                                                                                         MOD_RES
DISULFID
SEQUENCE
                                                                                                                              SITE
                                                                                                                                                                                                         PROSITE; PS00251; TNF_1; 1.

PROSITE; PS50049; TNF_2; 1.

Cytokine; Cytotoxin; Transmembrane; Phosphorylation;
                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                EMBL; Y14137; CAA74569.1; -. EMBL; AF082491; AAC32615.1; -. EMBL; AF012910; AAF34863.1; -.
                                                                                                                                                                 TRANSMEM
                                                                                                                                                                              DOMAIN
                                                                                                                                                                                         CHAIN
                                                                                                                                                                                                                                                                                     Pfam; PF00229; TNF; 1
                                                                                                                                                                                                                                                                                             InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family
                                                                                                                                                                                                                                                                                                                       HSSP; P06804;
178 PKESLEGAEFKPWY 191
                    PKDTPEGAELKPWY 14
                                                                                                                                 57
77
                                                                                                                                                              78
1
36
                                                                                                                            233
78
                                                                                           25764
                                                                                           WW;
                                         Pred. No. 0.00
2; Mismatches
                                                                                                                                                                         TUMOR NECROSIS FACTOR,
TUMOR NECROSIS FACTOR,
CYTOPLASMIC (POTENTIAL)
                                                                 Score 62;
                                                                                                       ВУ
                                                                                                              EXTRACELLULAR (POTENTIAL).
CLEAVAGE (BY ADAM17) (BY SIMILARITY).
PHOSPHORYLATION (BY CK1) (BY SIMILARITY).
                                                                                                                                                              SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                     (POTENTIAL)
                                                                                        SIMILARITY.
34D3D1965DAAE0E7 CRC64;
                                                      DB 1;
0.0073;
                                                                 Length 233;
                                                                                                                                                                                                   MEMBRANE
                                                                                                                                                                                      SOLUBLE FORM.
                                                                                                                                                                                                             Signal-anchor
                                            0;
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Search completed: April 4, 2003, 08:40:26 Job time: 5.64516 secs

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Result
No.
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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Sequence: '
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    Database
                                                                                                                                                                                                                                       pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed.
                                                                                                                                                                             Score
                                                                                                                                                                                                                                is
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seq
  derived
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Gapop 10.0 ,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             April 4, 2003, 08:37:16; Search time 20.3226 Seconds (without alignments) 141.944 Million cell updates/sec
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Match Length
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                                                                                                                                               95
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                    89
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                       sp_unclassified:*
sp_rvirus:*
sp_bacteriap:*
sp_archeap:*
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                                                                                                                                                                                                                                                                                                                                                                                                                               sp_bacteria:*
                                                                                                                                                                                                                               by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                  sp_organelle:*
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                                                                                                     156
217
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Q9ERG6
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Q9P1Q2
Q9P1Q2
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Q99ND1
                              Q9BEC4
Q9BEC5
Q43647
          Q9BEE8
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                                                                                  Q9BEF4
                                                                                                                                              Q9JI26
Q9JI27
                                                                                                                                                                                                             SUMMARIES
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           Q9bee8
Q9beg0
                               Q9bec5
043647
                                                                                                                         Q9ji26 rattus norv
Q9ji27 rattus norv
Q9lzl4 sigmodon hi
Q9erg6 peromyscus
                                                             Q9uiv3 homo sapien
Q99nd1 tamiasciuru
                                                                                   Q9bef4
                                                                                                                                                                            Description
                                                    Q9bec4 talpa europ
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5 tenrec ecau
7 homo sapien
8 erinaceus e
0 cyclopes di
1 bradypus tr
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                                                                                             aotus nancy
                                                                                                       homo sapien
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47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	48	48	48	51	51	5	51	57
6	9	σ.	σ,	56.0	σ.	σ.	6	σ.	σ,	σ.	σ.	σ.	6	9	ς.	σ.	<u>ه</u>	σ,	5	σ.	7.	7	7.	0	0	0	60.7	7.
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12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	2	12	12	12	12	12	16	11	6	6	6	6	σ	0
Q88795	879	879	Q88792	879	Q9PZW6	Q9PZW7	Q9PZW8	т	Q9PZX0	Q9PZX1	Q9PZX2	Q9PZX3	Q9PZX4	Q9PZX5	Q9PZX6	Q9PZX7	Q88678	Q66579	Q9IBP3	Q86972	Q9CFA2	Q60979	Q9BEC9	Q9TTJ3	Q9TTG8	097538	Q9TTG7	Q27978
887	87	88793	887	Q88790	9wzd	pzw7	8MZ			Q9pzx1								Q66579			Q9cfa2		Q9bec9 o	Q9ttj3 e	Q9ttg8 a	097538 a	Q9ttg7 a	Q27978 b
eastern equ	rn	eastern equ	eastern equ	eastern equ	eastern equ	eastern equ	eastern equ		eastern equ	eastern equ	eastern equ	eastern equ	western equ	western equ	lactococcus	mus musculu	on ê	equus cabal	aotus nigri		aotus lémur	bos taurus						
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ALIGNMENTS

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                                                        Best Loc
Matches
                                                                                     Query Match
                                                                                                                                                                                                                                   STRAIN-DARK AGOUTI;
Seidel M.F., Junier M.-P., Vetter H.;
Seidel M.F., Junier M.-P., Vetter H.;
"TNF-alpha polymorphism in rats with collagen-induced arthritis.";
Submitted (MAY-2000) to the EMBL/GenBank/DDBJ databases.
EMBL, AF269160; AAF82568.1; -.
HSSP; P06804; 2TNF.
InterPro; IPR003636; TNF_abc.
InterPro; IPR003478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               O9JI26 PRELIMINARY; PRT; 235 AA.

O9JI26:
01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                               PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
NON_TER 235 235
                                                                                                                                                                           Pfam; PF00229; TNF; 1.
PRINTS; PR01234; TNECROSISFCT.
ProDom; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                              __, _ucneri
NCBI_TaxID=10116;
[1]
                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota, Métazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                      Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                    TNF-alpha propeptide 3 (Fragment).
                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
180 PKDTPEGAELKPWY 193
                                                                         Local
              1 PKDTPEGAELKPWY 14
                                                                       Similarity
                                                                                                                   235 AA;
                                                         100.0%; Score 84; DB 11; ilarity 100.0%; Pred. No. 9.8e-06; Conservative 0; Mismatches 0;
                                                                                                                    25789 MW;
                                                                                                                    C801B92D049C2F2E CRC64;
                                                                                       Length 235;
                                                            Indels
                                                              0;
                                                            Gaps
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RESULT 3
Q91ZIA
ID Z94
ID Q91Z
AC Q91Z
AC Q91Z
DT 01-D
DT 01-D
DT 01-M
OC Sign
OC Sign
OC Sign
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OC Sign
In [1]
RN [1]
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RP SECI
RA Blar
RT "Si;
RP EMBI
DR Inte
DR Proi
DR Proi
DR PRO;
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Best Local
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Best Local :
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  Matches
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ProDom; PD002012; TNE_abc; 1.
SMART; SM00207; TNE; 1.
PROSITE; PS00251; TNE; 1; 1.
PROSITE; PS50049; TNF; 2; 1.
NON_TER 235 235
                                                                                                                                                                                                                                                                                                                                                       Q91ZL4;
Q91ZL4;
01-DEC-2001
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q9J127
Q9J127;
01-OCT-2000
01-OCT-2000
                                                                                                                         SEQUENCE FROM N.A.
Blanco J.C., Pletneva L.M., Prince G.A.;
Blanco J.C., Pletneva L.M., Prince G.A.;
"Sigmodon hispidus cytokines, chemokines and interferons.";
Submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AF421188; AAL18818.1;
InterPro; IPR003636; TNF_abc.
InterPro; IPR003636; TNF_abc.
InterPro; IPR003636; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                           Sigmodon hispidus (Hispid cotton rat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Sigmodontinae;
                                                                                                                                                                                                                                                                                                                          01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequen.
01-MAR-2002 (TrEMBLrel. 20, Last annotat)
Tumor necrosis factor alpha (Fragment).
                                                         NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN-DARK AGOUTI;
Seidel M.F., Juniter M.-P., Vetter H.;
"TNF-alpha polymorphism in rats with collagen-
Submitted (MAY-2000) to the EMBL/GenBank/DDBJ
EMBL; AF269159; AAF82567.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
TNF-alpha propeptide 5 (Fragment).
                                                                                    PROSITE;
                                                                                                 PROSITE;
                                                                                                                ProDom;
                                                                                                                                                                                                                                                                       Sigmodon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HSSP: P06804: 2TNF.
InterPro; IFR003636; TNF_abc.
InterPro; IFR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                       NCBI_TaxID=42415;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 PKDTPEGAELKPWY
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 l Similarity
12; Conserv
                                                                                PD002012; TNF_abc; 1.
; PS00251; TNF_1; UNKNOWN_1.
; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 235
235 AA;
                                                         156
 Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       95.2%;
92.9%;
             91.7%;
85.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25806 MW;
                                                         MW.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rats with collagen-induced arthritis.";
e EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                       Last sequence update)
Last annotation updat
Score 77; DB Pred. No. 8.6e 2; Mismatches
 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 80; DB 11, Pred. No. 4.4e-05; O;
                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
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                                                      DC565F3BC3C826E4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                156
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                             DB 11;
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             .6e-05;
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                          Length 156;
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 Indels
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Gaps
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RESULT 5
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Best Local
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O70332;
O1-AUG-1998 (TrEMBLrel. 07, Created)
O1-AUG-1998 (TrEMBLrel. 07, Last sequence)
O1-OCT-2001 (TrEMBLrel. 18, Last annotate)
Tumor necrosis factor-alpha (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q9ERG6;
Q9ERG6;
01-MAR-2001
01-MAR-2001
                                                                                                                   MEDLINE=98234044; PubMed=9573100;
Melby P.C., Tryon V.V., Chandrasekar B.,
"Cloning of Syrian hamster (Mesocricetus
analysis of cytokine mRNA expression in 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NON_TER
NON_TER
SEQUENCE
                       Infect. Immun. 66:2135-2142(1998).
EMBL; AF046215; AAC40100.1; -.
HSSP; P06804; 2TNF.
                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SMART; SM00207; TNF; 1.
PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Herbst M.M., Schountz T.;
"Cloning of the deer mouse interferon gamma, interleukinecrosis factor genes.";
Submitted (SEP-2000) to the EMBL/GenBank/DDBJ databases EMBL; AF307013; AAG30264.1; ...
HSSP; P06804; 2TNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequen
01-DEC-2001 (TrEMBLrel. 19, Last annota
Tumor necrosis factor alpha (Fragment).
                                                                                                                                                                                                                         TISSUE=SPLEEN
                                                                                                                                                                                                                                                                                                                                                                                               Mesocricetus auratus (Golden hamster)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1.
                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                           NCBI_TaxID=10036;
                                                                                                                                                                                                                                                                                                                          Mesocricetus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE-SPLEEN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Peromyscus maniculatus (Deer mouse).
                                                                                                 leishmaniasis."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=10042;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Peromyscus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         172 PKETPEGSELKPWY 185
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IPR003636; TNF_abc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    217
217
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA;
                                                                                                                                                                                                                                                                                                                                            Chordata; Craniata; Vertebrata; Euteleostomi; Rodentia; Sciurognathi; Muridae; Cricetinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14
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85.7%;
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Last annotation update)
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
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                                                                                                                        experimental
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                                                                                                                                                                        Freeman G.L.;
                                                                                                                                                 auratus)
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                                                                                                                                                 cytokine cDNAs
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Pfam; PF00229; TNF;

InterPro; IPR000478;

TNF_family

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RESULT
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097543
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Best Local S
Matches 12
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Best Local S
Matches 10
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TISSUE-PROSTATE TUMOR;
Shao C., Yan W., Zhu F., Yue W., Cl
Shao C., Yan W., Zhu F., Yue W., Cl
Submitted (MAR-2000) to the EMBL/Ge
EMBL; AF098751; AAF71992.1; -.
HSSP; P01375; 5TSW.
InterPro; IPR003636; TNF_abc.
InterPro; IPR003636; TNF_family.
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NON_TER
SEQUENCE
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ProDom; PD002011; TNF_abc; 1.
SMART; SM00207; TNF; 1.
PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-OCT-2000 (TrEMBLrel. 15,
01-OCT-2000 (TrEMBLrel. 15,
01-DEC-2001 (TrEMBLrel. 19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APC1 protein (Fragment).
Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q9P1Q2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q9P1Q2
                                                                                                                                                                                O97543 PRELIMINARY; PRT;
O97543;
O1-MAY-1999 (TrEMBLrel. 10, Created)
O1-MAY-1999 (TrEMBLrel. 10, Last seq)
O1-OCT-2001 (TrEMBLrel. 18, Last annor necrosis factor alpha (Fragmen)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pfam; PF00229; TNF; 1.
PRINTS; PR01234; TNECROSISFCT.
PRODOM; PD002012; TNF_abc; 1.
PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9606
                                                                                  Aotus nancymaae (Owl monkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Platyrrhini; Cebidae;
                                                                                                                                                               TNF-ALPHA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      σ
Echeverry S.J., Hernandez
                     SEQUENCE FROM N.A.
                                                                 NCBI_TaxID=37293;
                                                                                                                                                                                                                                                                                                                                                                                                                     31 RETPEGAEAKPWY 43
                                                                                                                                                                                                                                                                                                                                                                                                                                               2 KDTPEGAELKPWY 14
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12; Conserv
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216 AA;
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23793 MW; BADAE3F83F45B533 CRC64;
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76.98;
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EMBL/GenBank/DDBJ databases.
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Last annotation update)
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Pred. No. 0.
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                                                                                                                                                                                    (Fragment).
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Pred. No. 0.003;
Moreno A., Patarroyo M.E.,
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Aotinae; Aotus
         Murillo L.A.;
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RESULT 9.
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ProDom; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
PR0SITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
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Submitted (JUI-1997) to the EMBL/GenBank/DDBJ databases
EMBL; AF014513; AAD01539.1;
HSSP; P01375; 4TSV.
InterPro; IPR003636; TNF_abc.
InterPro; IPR00378; TNF_family.
Pfam; PF00229; TNF; 1
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 Q9UIV3;
Q9UIV3;
Q1-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                      Cabassous unicinctus (Southern naked-tailed armadillo).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Edentata; Dasypodidae; Cabassous.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
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NON_TER
SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tumor necrosis factor (Fragment).
                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. van Dijk M.A., de Jong W.W.; "Indels indicate that rodents are monophyletic and lagomorphs
                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=48852;
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InterPro; IPR000478; TNF_family.
                                                                                   171 RETPEGAEAKPWY
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                                                                                                         2 KDTPEGAELKPWY 14
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217 AA;
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  (TrEMBLrel. 13,
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Pred. No. 0.011;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JIIS F., Bouqueleret L., Prieur S., Cateri
Jurka J., Rodriguez-Tome P., Claverie J.,
"Dense Alu clustering and a potential new
family within a 90 kilobase HLA class III
Nat. Genet. 3:137-145(1993).
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                                                                                                 SEQUENCE FROM N.A.
MEDITAB-91139175; PubMed-1671667;
Abraham L.J., Du D.C., Zahedi K.,
"Haplotypic polymorphisms of the T
Immunogenetics 33:50-53(1991).
                                                                                                                                                                                Correlates with A Variant Amino Acid Level of TNF-beta Production.";
                                                                                                                                                                                                                                        MEDLINE-91086846; PubMed=1670638; Messer G., Spengler U., Jung M.C.,
                                                                                                                                                                                                                                                                                                                                                MEDLINE-86016093;
                                                                                                                                                                                                                                                                                                                                                                                                      Browning J.L., Ngam-ek A., Lawton P., DeMarinis J., Tizard R. Chow E.P., Hession C., O'Brine-Greco B., Foley S.F., Ware C.I "Lymphotoxin-beta: A new member of the TNF family that forms
                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. MEDLINE=93208881; PubMed=7916655;
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Mammalia;
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      "Characterization of a novel gene in the histocompatibility complex that encodes I kappa B family of proteins."; Hum. Mol. Genet. 3:793-799(1994).
                                                                                                                                                                                                                              Messer G., Spengler U., Jung Riethmueller G., Weiss E.H.;
                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                             Nucleic Acids [6]
                                                                                                                                                                                                                                                                                     "Human lymphotoxin and tumor necrosis fa
homology and chromosomal localization.";
Nucleic Acids Res. 13:6361-6373(1985).
                                                                                                                                                                                                                                                                                                                       Nedwin G.E., Naylor S.L., Sakaguchi A.Y., Pennica D., Goeddel D.V., Gray P.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
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                                                      Albertella M.R., Campbell D.R.;
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                                                                MEDLINE-94362679;
                                                                                                                                                                                                        Polymorphic Structure of the Tumor Necrosis Wool Polymorphism in the First Intron of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Immunogenetics 42:315-322(1995).
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.C., McManus B.M.,
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Primates;
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Human TNF-beta Gene
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Q99ND1;
01-JUN-2001
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01-DEC-2001
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Kimura M., Inoko H.;
"Nucleotide sequencing
"Nucleotide sequencing
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MEDLINE-95324911; PubMed=7601445;

MEDLINE-95324911; PubMed=7601445;

Peelman L., Chardon P., Nunes M., Renard C.,

Van Zeveren A., Coppleters W., Van de Weghe &

Strominger J., Spies T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1. SEQUENCE 232 AA; 25446 MW;
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"Alternative splicing of the
histocompatibility complex or
  van Dijk M.A.M.,
"Indels indicate
                                         SEQUENCE FROM N.A
                                                                                                                     Mammalia; Eutheria;
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HSSP; P01375; 4TSV.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Goto K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Shiina T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           differential
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  de Baey A.,
Weiss E.H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. MEDLINE-98035883;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA
                                                                                NCBI_TaxID=10009
                                                                                                       Tamiasciurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SMART; SM00207;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR003636; InterPro; IPR000478;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=98149985; PubMed=9480751;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
MEDLINE=20132445; PubMed=10668961;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nuclear RNA
                                                                                                                                                                                                                                                                                                                                                                                                       178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00229; TNF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "The BAT1 Gene in the MHC Er
Nuclear RNA Helicase of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'Complex expression
                                                                                                                                                                                                                                                                                                                                             10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                          2 KDTPEGAELKPWY 14
                                                                                                                                                                                                                                                                                                                                                                                                       RETPEGAEAKPWY
                                                                                                                                                                                                     necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . Similarity
10; Conser
  indicate that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chen L., Yamazaki M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ., Tamiya G., Oka A., Yamagata T.,
Mizuki N., Watanabe K., Fukuzumi
Chen L., Yamazaki M., Tashiro H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      45:591-600(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8:155-160(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RNA Helicase of the 26:210-218(1995).
                                                                                                                                          Metazoa;
                                                                                                                                                                                                                    (TrEMBLrel. 17, Created)
(TrEMBLrel. 17, Last sequence update)
(TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Fellerhoff
                                                                                                                   hudsonicus (American red squirrel).
etazoa; Chordata; Craniata; Vertebra
theria; Rodentia; Sciurognathi; Sciu
                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         regulation, in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TNF;
                    de Jong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PubMed=9367684;
rhoff B., Maier
                                                                                                                                                                                                                                                                                                                                                                                                       190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    77.48;
76.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TNF_abc.
TNF_family.
rodents are monophyletic and
                                                                                                                                                                                                     (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           analysis of the 146-kilobase segment
the centromeric end of the HLA class
                      W.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             initiation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Encodes an
he D-E-A-D F
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S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 65; DB 4;
Pred. No. 0.012;
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LST-1
                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  E4D71B19C6AE0D03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    s,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       n Evolutionarily Conserved Putative
Family.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   chromosome
                                                                                                                                                                                                                                                                                                      215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Martinozzi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             region
                                                                                                                       Vertebrata; Euteleostomi;
thi; Sciuridae; Sciurinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  located
                                                                                                                                                                                                                                                                                                      AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             alternative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   y., Taguchi S., Ando A., Ikemura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               , Geffrotin C., Va
ກວາກquet Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Α.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 232;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    s;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . in
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
  hagomorphs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the major
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., Sugawa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sugawara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Vaiman
, Choy W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             aroud the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
  are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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RESULT 11
Q9BEC4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
Q9BEC5
ID Q9BEC
AC Q9BEC
DT 01-JU
                                                                                                                                                                                                                                                                                                                                                                                          SCOOL DESCRIPTION OF THE PROPERTY OF THE PROPE
                                                                                                                                                                                             뮹
                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
Q9BEC5;
Q9BEC5;
01-JUN-2001
01-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    O9BEC4 PRELIMINARY; PRT; 216 AA.
O9BEC4; PRT 216 AA.
O1-JUN-2001 (TrEMBLrel. 17, Created)
O1-JUN-2001 (TrEMBLrel. 17, Last sequence update)
O1-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ProDom; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                        NON_TER
NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      their sister group.";
Submitted (FEB-2000) to the
EMBL; AJ286831; CAC28539.1;
HSSP; P01375; 1A8M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Ver
Mammalia; Eutheria; Insectivora; Talpidae;
MCBI_TaxID=9375;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Talpa europaea (European mole).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRINTS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             their sister group.";
Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRINTS; PR01234; TNECROSISFCT PRIODOR; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1. PROSITE; PS00251; TNF; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tumor necrosis factor (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HSSP; P06804;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    van Dijk M.A.M., de Jong W.W.;
"Indels indicate that rodents are monophyletic and lagomorphs
                                                                                                                                                                                               170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ofam; PF00229; TNF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  168 PKESLEGAEFKPWY 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PKDTPEGAELKPWY 14
                                                                                                                                                                                                                        2 KDTPEGAELKPWY 14 ::||||||
                                                                                                                                                                                               RETPEGAEARPWY 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AJ286824; CAC28540.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            l Similarity
10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRO1234; TNECROSISFCT.
                                                                                                                                                                                                                                                                                         Similarity
9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IPR000478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IPR003636; TNF_abc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               215 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      215
                                                                                                                                                                                                                                                                                                                                                                                          216 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
  (TrEMBLrel. 17, Created)
(TrEMBLrel. 17, Last sequence update)
                                                                                                                                                                                                                                                                                         Conservative
                                                                          PRELIMINARY,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2TNF.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73.8%;
71.4%;
                                                                                                                                                                                                                                                                                                                  73.8%;
69.2%;
                                                                                                                                                                                                                                                                                                                                                                                          23542 MW; FFFEFE8DBBD27836 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2;
                                                                                                                                                                                                                                                                                              Score 62; DB Pred. No. 0.03 3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL/GenBank/DDBJ databases
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 62; DB 11
Pred. No. 0.032;
2; Mismatches
                                                                          PRT;
                                                                             217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 11; Length 215;
                                                                                                                                                                                                                                                                                                                    DB 6;
0.033;
                                                                             A
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                                                                                                                                                                                                                                                                                                                                        Length 216
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                                                                                                                                                                                                                                                                                                0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
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Дb

103 RETPRGAEAKPWY

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RESULT 13
043647
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                                                                                                                                                                                                                              Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity by...
""" hes 9; Conservative
                                                            Query Match
Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NON_TER
NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    043647;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SMART; SM00207; TNF; 1.
PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pfam; PF00229; TNF; 1.
PRINTS; PR01234; TNECROSISECT
ProDom; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases EMBL; AJ286826; CAC28538.1; .
HSSP; P01375; 4TSV.
                                                                                                                                                            NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUN-1998 (TREMBLRel. 06, 01-JUN-1998 (TREMBLRel. 06, 01-DEC-2001 (TREMBLRel. 19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   their sister group.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         van Dijk M.A.M., de Jong W.W.; "Indels indicate that rodents are monophyletic and lagomorphs are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Insectivora; Tenrecidae; Tenrecinae; Tenrec.
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Eukaryota; Metazoa; Chordata; Craniata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tumor necrosis factor (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-DEC-2001 (TrEMBLrel.
                                                                                                                                                                                                                                                                                           InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1
PRINTS; PR01234; TNECROSISFCT.
                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.

Jang J.S., Kim B.E.;

Jang J.S., Kim B.E.;

Submitted (JAN-1998) to the EMBL/GenBank/DDBJ databases

EMBL; AF043342; AAC03542.1; -.

HSSP; P01375; 1A8M.
                                                                                                                                                                                                     ProDom; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tumor necrosis factor alpha
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 KDTPEGAELKPWY
              N
KDTPEGAELKPWY
                                                               Similarity
9; Conserv
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217 AA;
                                                                                                                                                            157 AA;
                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
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23845 MW;
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                                                                                                                                                              17380 MW;
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69.2%;
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                                                                                       71.4%;
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, Last sequence upo
, Last annotation of the company of
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Pred. No. 0.033;
                                                                                       Score 60; I
Pred. No. 0.
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                                                                                                                                                                 D1344822267E9F20 CRC64;
                                                                    Mismatches
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                                                                                            DB 4;
0.049;
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                                                                      Indels
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RESULT 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 71.4
Best Local Similarity 75.0
Matches 9; Conservative
InterPro; IPR003636; TNE_abc.
InterPro; IPR000478; TNE_family.
Pfam; PF00229; TNF; 1.
PRINTS; PR01234; TNECROSISFCT.
PRODOM; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1; 1.
PROSITE; PS00251; TNF=1; 1.
PROSITE; PS0049; TNF=2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q9BEGO;
01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q9BEE8;
01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                            van Dijk M.A.M., de Jong W.W.;
"Indels indicate that rodents are monophyletic and lagomorphs
"heir sister group.";
Submitted (PEB-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ286828; CAC28514.1;
HSSP; P01375; 1A8M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Erinaceus europaeus (Western European hedgehog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Insectivora; Erinaceidae; Erinaceinae; Erinaceus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cyclopes didactylus (silky anteater).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Edentata; Myrmecophagidae; Cyclopes.
MCBI_TaxID-84074;
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SMART; SM00207; TNF; 1.
PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
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Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases EMBL; AJ286830; CAC28522.1;
HSSP; P01375; 4TSV.
InterPro; IPR003636; TNF_abc.
InterPro; IPR00378; TNF_family.
Pfam; PF00229; TNF; 1.
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"Indels indicate that rodents are monophyletic and lagomorphs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRINTS; PR01234; TNECROSISFCT.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 DTPEGAELKPWY 14 : | | | | | | | | | | | | | |
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215 AA;
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23696 MW;
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75.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
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Query Match
Best Local Similarity
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Search completed: April Job time : 21.3226 secs
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NON_TER
SEQUENCE
                                 171 RETPEGPEAKPWY 183
                                         2 KDTPEGAELKPWY 14
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217
217 AA;
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217
23753 MW;
                                                                            71.4%;
69.2%;
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        2003, 08:42:05
                                                                    2;
                                                                            Score 60; DB 6; Pred. No. 0.069;
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                                                                    Mismatches
                                                                    2; Indels
                                                                                     Length 217;
                                                                    0,
                                                                    Gaps
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Result
No.
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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  protein search, using sw model
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Gapop 10.0 , Gapext 0.5
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Match
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84
  Issued_Patents_AA.*
1: /cgn2_6/ptodata/1/1aa/5A_COMB.pep:*
2: /cgn2_6/ptodata/1/1aa/5B_COMB.pep:*
3: /cgn2_6/ptodata/1/1aa/6A_COMB.pep:*
4: /cgn2_6/ptodata/1/1aa/6B_COMB.pep:*
5: /cgn2_6/ptodata/1/1aa/PCTUS_COMB.pep:*
6: /cgn2_6/ptodata/1/1aa/backfiles1.pep:*
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                                                                                                                                                                                                                                                                                                                                                               Length
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US-08-500-860A-24
US-08-500-860A-36
PCT-US93-02475-9
PCT-US93-02475-9
US-08-800A-25
US-07-668-517-1
US-07-668-517-15
US-07-668-517-16
US-07-668-517-16
US-07-668-517-16
US-07-668-517-19
US-07-668-517-19
US-07-668-517-19
US-07-668-517-11
US-07-668-517-11
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US-07-668-517-13
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US-07-668-517-13
US-07-668-517-31
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             Sequence 24, Appl
Sequence 36, Appli
Sequence 9, Appli
Sequence 7, Appli
Sequence 7, Appli
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Sequence 17, Appli
Sequence 15, Appli
Sequence 16, Appli
Sequence 16, Appli
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   Sequence
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COUNTRY ZIP: COMPUTER MEDIUM COMPUTER COMPUTER COMPUTER COMPUTER CORPUTE CORRENT A CARRENT A CAR	RESULT 1 US-08-500-860A- ; Sequence 24, ; Patent No. 58 ; Patent No. 58 ; GENERAL INFO APPLICANT: APPLICANT: APPLICANT: APPLICANT: TITLE OF I TITLE OF I NUMBER OF CORRESPOND ADDRESSE STREET: STATE: STATE:	22222222222222222222222222222222222222
PETOE THE CANADACTER TO CONTRACT THE CONTRAC	860A-24 24, Application US/08500860A 24, Application US/08500860A 0. 5891679 INFORMATION: INFORMATION: CANT: LICAS, RUDOLPH CANT: DE BAETSELIER, PATRICK CANT: FRANSEN, LUCIE CANT: SABLON, ERWIN OF INVENTION: THE-MUTEINS, A PROCE OF INVENTION: THEIR USE AS ACTIVE ROF SEQUENCES: 36 SPONDENCE ADDRESS: SPONDENCE ADDRESS: RESSEE: NIXON & VANDERHYE P.C. RESSEE: NIXON & VANDERHYE P.C. EET: 1100 NORTH GLEBE ROAD Y: ARLINGTON TE: VIRGINIA	65 77.4 150 1 US-07-994-469A-7 65 77.4 150 1 US-07-994-469A-8 65 77.4 150 1 US-07-994-469A-7 65 77.4 150 1 US-07-986-529-25 65 77.4 151 1 US-07-668-517-19 65 77.4 151 1 US-07-668-517-23 65 77.4 151 1 US-07-668-517-25 65 77.4 151 1 US-07-668-517-26 65 77.4 151 1 US-07-668-517-36 65 77.4 151 1 US-07-668-517-36 65 77.4 151 1 US-07-668-517-36 65 77.4 151 1 US-07-668-517-32
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                                                                                                 Sequence 8, Application PC/TUS9302475 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                 Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                        TELEX: 200797 NIXN UR INFORMATION FOR SEQ ID NO:
                                      APPLICANT: Wisniesk, Dennis Repullant: Wisniesk, Tumor Necros TITLE OF INVENTION: Ion Channel TITLE OF INVENTION: Ion Channel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRES
                                                                                                                                                                                                                                                                                                                    TOPOLOGY: linear MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION:
TELEPHONE: (703)816-4000
TELEFAX: (703)816-4100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: SABLON, ERWIN
TITLE OF INVENTION: THEIR USE AS ACTIVE SUBSTANCES IN PHARMACEUTICAL COMPOSITIONS
                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: BYRNE, THOMAS E.
REGISTRATION NUMBER: 32,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
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                                                                                                                                                                                         101
                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: VIRGINIA COUNTRY: U.S.A.
                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: ARLINGTON
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                                                                                                                                                                                                                  1 PKDTPEGAELKPWY 14
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                                                                                                                                                                                       PKDTPEGAELKPWY 16
                                                                                                                                                                                                                                                             Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Application US/08500860A
                                                                                                                                                                                                                                                                                                                                                                          156 amino acids
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1100 NORTH GLEBE ROAD
                                                                                  Wisnieski, Bernadine J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DE BAETSELIER, PATRICK
                                                                                                                                                                                                                                                 Conservative
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                                                                       Necrosis
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Pred. No.
                                                                                                                                                                                                                                                             Pred. No.
                                                                                                                                                                                                                                               Mismatches
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                                                                       Factor with Modified
                                                                                                                                                                                                                                                          1e-06;
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                                                                                                                                                                                                                                                                            DB 2;
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Matches
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STREET: SAN Diego
CITY: San Diego
CMATE: California
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PCT-US93-02475-9
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                                                                                                                                Sequence 9, Application PC/TUS9302475 GENERAL INFORMATION:
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SEQUENCE CHARACTERISTICS:
LENGTH: 157 amino acids
TYPE: AMINO ACIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/1
FILING DATE: 12 March 1992
ATTORNEY/AGENT INFORMATION:
NAME: Donald G. Lewis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM: MEDIUM TYPE: Diskette,
                                                                                   TITLE OF INVENTION:
                                                CORRESPONDENCE ADDRESS:
                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PUBLICATION INFORMATION:
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FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION: TELEPHONE: (619) 554-2421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
                                                                  NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                        102 PKDTPEGAELKPWY 115
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ZIP: 92122
                                                                                                                                                                                                                                                                                                                                                                                                                   PAGES: 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: and the sequence numbering is augment OTHER INFORMATION: starting with residue No. 71 in order OTHER INFORMATION: the sequence homology with human TNF
ADDRESSEE: Donald G. ADDRESSEE: 8328 Regents Road #1E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER INFORMATION: A blank residue designated by OTHER INFORMATION: "Xaa" is inserted after resid
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CITY: San Diego
STATE: Californ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         VOLUME:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS: Shirai, T., Shimizu, N., AUTHORS: S., and Ito, H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY:
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                                                                                                                                                                                                                                                                        1 PKDTPEGAELKPWY 14
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                                                                                                                                                                                                                                                                                                                       Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (619)
                                                                                               Wisnieski, Bernadine J.
VENTION: Tumor Necrosis Factor with Modified
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                                                                                                                                                                                                                                                                                                         Conservative
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                                                                                     Ion Channel
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             and the sequence numbering is augmented by 1 starting with residue No. 71 in order to maximize
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US 07/852,625
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                                                                                                                                                                                                                                                                                                         0;
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                                                                                                                                                                                                                                                                                                       Score 84; DB 5;
Pred. No. 1.1e-06;
Mismatches 0;
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US-08-883-086-7
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                                                                                                                                                                                               Sequence
                                                                                                                                                        sequence 7, Application US/08883086 atent No. 6171787 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 07/852,625
FILING DATE: 12 MATCH 1992
ATTORNEY_AGENT INFORMATION:
NAME: Donald G. Lewis
REGISTRATION NUMBER: 28636
REFERENCE/DOCKET NUMBER: BJW-2
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 554-2421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (619) 554-6312

NFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
                                                                  NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                        TITLE OF INVENTION: MEMBER OF THE TITLE OF INVENTION: FOR TREATMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Word Perfect CURRENT APPLICATION DATA:
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                                                                                                                                               APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: Tumor Necrosis Factor (murine)
OTHER INFORMATION: A blank residue designated by
OTHER INFORMATION: "Xaa" is inserted after residue No. 70 of murine
OTHER INFORMATION: TNF and the sequence numbering is augmented by 1
OTHER INFORMATION: starting with residue No. 71 in order to maximize
OTHER INFORMATION: the sequence homology with human TNF.
                                                                                                                                                                                                                                                                                                                                                           Local Similarity 100 nes 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE: Identification of a Common Nucleotide
TITLE: Sequence in the 3'-Untranslated Region of mRNA
TITLE: Molecules Specifying Inflammatory Mediators.
JOURNAL: Proc. National Academy of Science,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 1 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   RELEVANT RESIDUES
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                                 STREET:
                                                  ADDRESSEE:
                                                                                                                                                                                                                                                                                                           1 PKDTPEGAELKPWY 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ENGTH:
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Abbott Park
IL
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                               100 Abbott Park Road
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   157 amino acids
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                                                                                                                                             WILEY, STEVEN
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                                                    Abbott Laboratories
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                                                                                                    MEMBER OF THE THE FAMILY USEFUL FOR TREATMENT AND DIAGNOSIS OF DISEASE
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                                                                                                                                                                                                                                                                                                                                                                          Score 84; DB 5;
Pred. No. 1.1e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 No No
                                                                                                                                                                                                                                                                                                                                                             Mismatches
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Matches
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INFORMATION FOR SEQ ID NO:
                                                                                                                         ZIF: 22201-4714
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
                                         CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: BYRNE, THOMAS E.
                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: LUCAS, RUDOLPH
APPLICANT: DE BAETSELIER,
APPLICANT: FRANSEN, LUCIE
APPLICANT: SABLON, ERWIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE: No. 6171787e
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MEDIUM TYPE: Diskett
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PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: THEIR USE AS ACTIVE SUBSTANCES IN PHARMACEUTICAL COMPOSITIO
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NAME: Porembski, Priscil
TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                       CITY: ARLINGTON STATE: VIRGINIA
                                                                                            APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                       COUNTRY: U.S.A. ZIP: 22201-4714
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les 14; Conser
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              REGISTRATION NUMBER: 32
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                      STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 No.
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1100 NORTH GLEBE ROAD
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                1487.-8
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Pred. No. 1
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RESULT 7
US-07-668-517-1
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Sequence 1, App-
No. 5262309
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                                                                                                              INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 147 amino acids
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TELEFAX: (703)816-4100
TELEX: 200797 NIXN UR
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                           SOFTWARE: DisplayWrite CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/C FILING DATE: 19910322 CLASSIFICATION: 530 PRIOR APPLICATION DATA:
                                                                                                                                                                                                        TELEPHONE: 202-371-8850
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TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE: Disk
COMPUTER: IBM CON
OPERATING SYSTEM:
                                                                                              TYPE: AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: Washington STATE: D.C.
                                                                                  STRANDEDNESS:
                                                                                                                                                                                                      TELEPHONE:
                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                          NAME: Matthew Jacob REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: FILING DATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: /note- "Biotin-Gly-Gly is coupled OTHER INFORMATION: to the N-terminus of the peptide"
                                  NAME/KEY:
                                                                    TOPOLOGY: linear
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IDENTIFICATION METHOD:
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TYPE: amino acid
STRANDEDNESS: single
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805 Fifteenth Street, N.W., #700
                                                                                                                                                                                      202-371-8856
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VENTION: No. 5262309el Physiologically Active
VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
VENTION: Cell, Pharmaceutical Composition and Method of Recovering
                                                                                                                                                                                                                                                                                                                                                                                                                                                 IBM Compatible SYSTEM: MS-DOS
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                                                                                  single
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                                                                                                                                                                                                                                                        25,154
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Pred. No. 0.00013;
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US-07-668-517-2
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                                                                Matches
                                                                                              Query Match
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Best Local Similarity
Matches 10; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM Compatibl
OPERATING SYSTEM: MS-DC
SOFTWARE: DisplayWrite
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 148 amino acids
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MEDIUM TYPE: Diskette,
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                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION: NAME: Matthew Jacob
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: 530 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Satoshi NAKAMURA et al.
TITLE OF INVENTION: October 150 Physiologically Active
TITLE OF INVENTION: Collypeptide, Recombinant Plasmid, Rec
TITLE OF INVENTION: Coll, Pharmaceutical Composition and
                                                                                                                                                                                                                                                                                                                           TELEPHONE: 202 - TELEPHONE: 202-371-8856
94 RETPEGAEAKPWY 106
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                                                              Local Similarity 76.9 es 10; Conservative
                                                                                                                                                                               LOCATION:
                                                                                                                                                                                            NAME/KEY:
                                                                                                                                                                                                                              TOPOLOGY:
                                                                                                                                                                                                                                           STRANDEDNESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: 805 Fifteenth Street, N.W., #700
                              2 KDTPEGAELKPWY 14
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                                                                                                                                                                                                                                                            AMINO ACID
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76.9%;
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76.98;
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Pharmaceutical Composition and Method of Recovering
                                                                           Score 65; DB 1;
Pred. No. 0.0014;
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Pred. No.
                                                                Mismatches
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                                                                                            Length 148;
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RESULT 9 US-07-668-517-15

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US-07-668-517-3
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Patent No. 5262309
GENERAL INFORMATION:
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                                                                                                       TITLE OF INVENTION: TITLE OF INVENTION:
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CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
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NAME: Matthew Jacob
                                                                                     NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                       ::|||||| ||||
94 RETPEGAEAKPWY 106
                                                                                                                                                                                                                                                                                                                                                                                        Match 77.4%;
Local Similarity 76.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IDENTIFICATION METHOD: OTHER INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: UFILING DATE: 19910322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: 805 Files
CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS:
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                    CITY:
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                                                   ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                        2 KDTPEGAELKPWY 14
                                                                                                                                                                                                                                                                                                                                                                           10;
              Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             H: 148 amino acids
AMINO ACID
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D.C.
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805 Fifteenth Street, N.W., #700
                                   805 Fifteenth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               U.S.A.
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                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                      Satoshi NAKAMURA et al.

ENTION: No. 5262309el Physiologically Active

FENTION: No. 5262309el Physiologically Active

FENTION: Oclypeptide, Recombinant Plasmid, Recombinant Microorganism

FENTION: Cell, Pharmaceutical Composition and Method of Recovering
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Satoshi NAKAMURA et al.
VENTION: No. 5262309el Physiologically Active
VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                   Wenderoth,
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                               Lind & Ponack
Street, N.W., #700
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                                                                                                                                                                                                                                                                                                                                                                                          Score 65; DB 1; Length 148; Pred. No. 0.0014;
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US-07-668-517-16
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Best Local Similarity
Matches 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 16, Application US/07668517 Patent No. 5262309
                                             SOFTWARE: DisplayWrite CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/O
FILING DATE: 19910322
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
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                                                                                                                                                                                 COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION:
TITLE OF INVENTION:
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
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ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES:
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OPERATING SYSTEM:
                                                                                                                                                                                                                                   COUNTRY:
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CLASSIFICATION:
                               APPLICATION NUMBER:
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IDENTIFICATION METHOD:
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VENTION: No. 5262309el Physiologically Active
VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
VENTION: Cell, Pharmaceutical Composition and Method of Recovering
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76.98;
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Matthew Jacob

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US-07-668-517-4
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;; IDENTIFICATION METHOD:
;; OTHER INFORMATION:
US-07-668-517-16
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Matches 10; Conservative
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                            INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 150 amino acids
TYPE: AMINO ACID
                                                                                                                                                                                                                                                                      SOFTWARE: DisplayWrite CURRENT APPLICATION NUMBER: 05/0 FILING DATE: 19910322 CLASSIFICATION: 530 PRIOR APPLICATION DATA:
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                                                                                                                               REFERENCE/DOCKET NUMBER:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-8850
                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
NAME: Matthew Jacob
REGISTRATION NUMBER: 25,154
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 149 amino acids
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REFERENCE/DOCKET NUMBER:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-8850
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TITLE OF INVENTION:
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CITY: Washington
STATE: D.C.
              TYPE: AMINO STRANDEDNESS:
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ZIP: 20005
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TOPOLOGY:
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805 Fifteenth Street, N.W., #700
                                                                                                                     202-371-8856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Satoshi NAKAMURA et al.
FENTION: No. 5262309el Physiologically Active
JENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
JENTION: Cell, Pharmaceutical Composition and Method of Recovering
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linear
            single
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76.98;
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Pred. No. 0.0014;
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В

96

RETPEGAEAKPWY 108

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                                                                                         ; LOCATION:
; IDENTIFICATION METHOD:
; OTHER INFORMATION:
US-07-668-517-5
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US-07-668-517-5
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                               Matches
                                            Query Match
Best Local
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 150 amino acids
                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION: TELEPHONE: 202-371-8850 TELEFAX: 202-371-8856
                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
NAME: Matthew Jacob
REGISTRATION NUMBER: 25,
                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 530 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
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MEDIUM TYPE: Diskett
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TITLE OF INVENTION:
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                                                                                                                                                                                                     LENGTH: 150 L. TYPE: AMINO ACID
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                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: UFILING DATE: 19910322
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SOFTWARE: Display
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Local Similarity 76.9%;
hes 10; Conservative
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2 KDTPEGAELKPWY 14
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                                            Similarity
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Satoshi NAKAMURA et al.
VENTION: No. 5262309el Physiologically Active
VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
VENTION: Cell, Pharmaceutical Composition and Method of Recovering
                               Conservative
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                                            77.48;
76.98;
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                                            Score 65; I
Pred. No. 0.
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Pred. No. 0.0014;
                            Mismatches
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                                            DB 1;
0.0014;
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                                                         Length 150
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RESULT 15
US-07-668-517-8
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                                                                                                                                                        Sequence 8, Application US/07668517 Patent No. 5262309 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                     Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 6, Application US/07668517 Patent No. 5262309
                                                           TITLE OF INVENTION: FITTLE OF INVENTION: FITTLE OF INVENTION: COMMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION: APPLICANT: Satosh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US, EILING DATE: 19910322 CLASSIFICATION: 530 PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
NAME/KEY:
LOCATION:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Wenderoth, Lind & Ponack
STREET: 805 Fifteenth Street, N.W., #700
                                                                                                                                         APPLICANT:
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TITLE OF INVENTION: No. 5262309el Physiologically Active
TITLE OF INVENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
TITLE OF INVENTION: Cell, Pharmaceutical Composition and Method of Recovering
NUMBER OF SEQUENCES: 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Matthew Jacob
REGISTRATION NUMBER: 25/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OPERATING SYSTEM: MS-DO SOFTWARE: DisplayWrite CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: 202-371-8850
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                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
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RY: U.S.A.
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                                                                   Satoshi NAKAMURA et al.
VENTION: No. 5262309el Physiologically Active
VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
VENTION: Cell, Pharmaceutical Composition and Method of Recovering
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76.98;
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Gaps

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; LOCATION:
; IDENTIFICATION METHOD:
; OTHER INFORMATION:
US-07-668-517-8
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Job time
 Search completed: April Job time: 9.03226 secs
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                                                                                                                                                Query Match
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SEQUENCE CHARACTERISTICS:
LENGTH: 150 amino acids
                                                                                                                                                                                                                                      FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: TELECOMMUNICATION: INFORMATION: TELEPHONE: 202-371-8850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: DisplayWrite CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Matthew Jacob
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION: 530 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
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96 RETPEGAEAKPWY 108
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FILING DATE: 19910322
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                                                                                                                                                                                                                                                                   TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Matthew Jacob REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
                                                                                       2 KDTPEGAELKPWY 14
                                                                                                                                                                                                                                                                                             AMINO ACID
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               4, 2003, 08:43:41
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Pred. No. 0.0014;
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Result
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Maximum DB
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Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
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                                                                                                                                                                                                                                                                                                              Score
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seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        /cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*
/cgn2_6/ptodata/2/pubpaa/PCTUS_PUBCOMB.pep:*
/cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
/cgn2_6/ptodata/2/pubpaa/US09_NEW_PUB.pep:*
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/cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
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US-10-137-910-8
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US-9-877-156-25
US-10-116-378-28
US-99-903-327A-7
US-10-043-432-1
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US-09-756-301A-1
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US-09-854-280-19
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US-09-766-535A-10
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US-09-766-535A-10
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US-09-766-535A-10
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US-09-756-161A-1
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                                                                                                                                             Sequence 40, Appl
Sequence 8, Appli
Sequence 6, Appli
Sequence 25, Appl
Sequence 28, Appl
Sequence 7, Appli
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48.8	48.8	50.0	51.2	54.8	58.3	77.4	77.4	77.4	77.4	77.4	7.7 . 4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4		77.4	77.4
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US-09-246-129B-7	US-09-131-237-7	US-09-866-050A-627	US-10-160-758-16	US-09-738-626-5707	US-09-911-777-5	US-09-903-327A-11	US-10-012-452-10	-260-	-09-899	-09-929-493-	US-09-345-790-3	US-09-246-129B-3	US-09-840-707A-14	US-09-782-980-43 ·	US-09-879-919-5	-663-	-882-4	US-10-174-654-9	31-2	14-	US-10-136-511-3	US-08-971-317A-5	US-09-982-308-3	US-10-145-014-3	US-09-981-289-2
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ALIGNMENTS

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TYPE: PRT; ORGANISM: Mus musculus US-09-779-050A-40
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US-10-017-910-8
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US-09-779-050A-40
                                                                                                                             Sequence 8, Application US/10017910 Patent No. US20020159970A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/779,050A
CURRENT FILING DATE: 2001-02-12
PRIOR APPLICATION NUMBER: 69/181,800
PRIOR FILING DATE: 2000-02-11
NUMBER OF SEQ ID NOS: 52
SOFTWARE: PatentIn version 3.0
SEQ ID NO 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: BOYLE, WILLIAM
APPLICANT: HSU, HAILING
TITLE OF INVENTION: RECEPTOR FROM THE FAMILY
FILE REFERENCE: A-570B
                                                                                                                                                                                                                                                                                                                              Best Local Similarity
Matches 14; Conserv
                                                                                                                                                                                                                                                                                                                                                                 Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 151
                                                                                                                                                                                                                                                       96 PKDTPEGAELKPWY 109
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                                                                                                           APPLICANT: Choi,
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INVENTION: A PRÔTEIN BELONGING TO THE TNF S
INVOLVED IN SIGNAL TRANSDUCTION,
METHODS OF USE THEREOF
                                                       Steinman, Ralph
                                                                         Josien, Regis
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Wong, Brian
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Pred. No. 2.
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Best Local Similarity 100.
               NUMBER OF SEQ ID NOS: 24
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 6
LENGTH: 268
                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 6, Application US/10185425 Publication No. US20030053984A1
                                                                                           CURRENT APPLICATION NUMBER: US/10/185,425
CURRENT FILING DATE: 2002-06-28
PRIOR APPLICATION NUMBER: PCT/EP00/13032
PRIOR FILING DATE: 2000-12-20
PRIOR APPLICATION NUMBER: DE 199 63 859.4
PRIOR FILING DATE: 1999-12-30
                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                        APPLICANT: Tschopp, Jurg
APPLICANT: Schneider, Pascal
APPLICANT: Holler, Nils
TITLE OF INVENTION: A Bimer or an Oligomer of a Dimer, Trimer, Quadromer,
TITLE OF INVENTION: Recombinant Fusion Proteins
FILE REFERENCE: 1708.001051
                                                                                                                                                                                                                                                                                                                                   APPLICANT: Apotech Research and Development Ltd APPLICANT: Tschopp, Jurg
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEX: 133521
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180 PKDTPEGAELKPWY 193
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER: 26,742
REFERENCE/DOCKET NUMBER: 600-1-200
TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-487-5800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/10/017,910
FILING DATE: 14-Dec-2001
CLASSIFICATION: - GUNKNOWN>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Mus musculus
SEQUENCE DESCRIPTION: SEQ ID NO: 8:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HYPOTHETICAL: NO ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: linear MOLECULE TYPE: protei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 09/447,035 FILING DATE: 1999-11-22 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
ADDRESSEE: Klauber & Jackson
STREET: 411 Hackensack Avenue, 4th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 235 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: 201-343-1684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Jackson Esq., David A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE: New Jersey
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Pred. No. 4.6e-06;
); Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 235;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                    or Pentame:
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                                                                                                                                                         US-10-116-378-28
                                                            GENERAL INFORMATION:
APPLICANT: Ashkenazi, Avi J.
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                                                                                                                         ; TYPE: PRT; ORGANISM: Homo sapien US-09-877-156-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; LOCATION: (111)...(268)
; OTHER INFORMATION: mouseTNFa aa 77-235
US-10-185-425-6
                                                                                                                                                                                                                                                                                                                                                          US-09-877-156-25
; Sequence 25, Application US/09877156
; Patent No. US20020055625A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
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                                                        Query Match
Best Local Similarity 76.
Matches 10; Conservative
                                                                                                                                                                                   NUMBER OF SEQ ID NOS: 25
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 25
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Matches
                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
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                                                                                                                                                                                                                                                             TITLE OF INVENTION: NEW MEMBERS OF THE AND THER FAMILIES FILE REFERENCE: 1408.003/200130.439C1
CURRENT APPLICATION NUMBER: US/09/877,156
CURRENT FILING DATE: 2001-06-08
                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: US 09/286,529 PRIOR FILING DATE: 1998-04-05
                                                                                                                                                                                                                                                                                                                             APPLICANT: Catherine Tribouley
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OTHER INFORMATION:
                                                                                                                                                                      LENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
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NAME/KEY: DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION: mouseACRP30 aa 18-111
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LOCATION: (17)..
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OTHER INFORMATION: Linker
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: TNFa-ACRP30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE
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96 RETPEGAEAKPWY 108
              2 KDTPEGAELKPWY 14 ::|||||| ||||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
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                                                                        77.48;
76.98;
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                                                                        Score 65;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                           Mismatches
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                                                                        DB 10;
0 0032;
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                                                                                       Length 150
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                                                        Gaps
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Sequence 28, Application US/10116378 Patent No. US20020150993A1

APPLICANT:
APPLICANT:

APPLICANT

APPLICANT

Goddard, Audrey Gurney, Austin Marsters, Scot A. Pitti, Robert M.

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RESULT 6
US-09-779-050A-24
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US-09-903-327A-7
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; LENGTH: 150
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-116-378-28
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SEQ ID NO 24
LENGTH: 152
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                                                                                                                                                        GENERAL INFORMATION:
APPLICANT: Nemerow, Glen R.
APPLICANT: Li, Erguang
                                                                                                                                                                                                                  Sequence 7, Application US/09903327A Patent No. US20020164333A1
                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
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CURRENT APPLICATION NUMBER: US/09/903,327A
CURRENT FILING DATE: 2001-07-10
PRIOR APPLICATION NUMBER: 09/613,017
PRIOR FILING DATE: 2000-07-10
                                                                            TITLE OF INVENTION: BIFUNCTIONAL MOLECULES AND VECTORS COMPLEXED THEREWITH FOR TARGET TITLE OF INVENTION: GENE TITLE OF INVENTION: DELIVERY FILE REFERENCE: 22908-1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/779,050A
CURRENT FILING DATE: 2001-02-12
PRIOR APPLICATION NUMBER: 60/181,800
PRIOR FILING DATE: 2000-02-11
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CURRENT FILING DATE: 2002-04-04
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 09/247,225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: HSU, HAILING
TITLE OF INVENTION: RECEPTOR FROM THE FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR FILING DATE: EARLIER FILING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE: A-570B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: BOYLE,
APPLICANT: HSU, F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                     98 RETPEGAEAKPWY 110
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Local Similarity 76.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
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76.9%;
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Pred. No. 0
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APPLICATION NUMBER: US 60/074,087
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; ORGANISM: HOMO US-10-043-432-1
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US-10-043-432-1
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                                                                                                        SEQ ID NO 1
LENGTH: 19
Query Match
Best Local Similarity
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APPLICANT: Vilcek, Jan
APPLICANT: Daddona, Pe
APPLICANT: Ghrayeb, Jo
                                                                                                                                             SOFTWARE:
                                                                                                                                                            PRIOR FILING DATE: 19
NUMBER OF SEQ ID NOS:
                                                                                                                                                                              PRIOR APPLICATION NUMBER: U.S. PRIOR FILING DATE: 1991-03-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT FILING DATE: 2002-01-10
PRIOR APPLICATION NUMBER: 09/927,703
PRIOR FILING DATE: 2001-08-10
PRIOR APPLICATION NUMBER: U.S. 09/756,398
PRIOR FILING DATE: 2001-01-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/10/043,432
CURRENT FILING DATE: 2002-01-10
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TYPE: PRT
ORGANISM: Human
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Siegel, Scott
TITLE OF INVENTION: Anti-TNF Antibodies and Peptides of
TITLE OF INVENTION: Human Tumor Necrosis Factor
                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: U.S.
PRIOR FILING DATE: 1992-09-11
PRIOR APPLICATION NUMBER: U.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILE REFERENCE: 0975.1005-013
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: U.
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                                                                                           TYPE: PRT
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LOCATION: (0)...(0)
OTHER INFORMATION: Tumor new
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                                                                                                                                                                                                                                                                                        FILING DATE: 1993-02-02
                                                                                                                                                                                                                                                                                                                          FILING DATE: 1993-01-29
                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: U
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                                                                                                                                               FastSEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Knight, David M.
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76.9%;
 77.4%;
76.9%;
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Pred. No.
 Score 65; DB 9; Pred. No. 0.0033;
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                Length 157;
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US-09-927-703-1
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Best Local Similarity 76.9%;
                                                                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO 1
                                                                                                 GENERAL INFORMATION:
                                                                                                               Sequence 1, Application US/09927703 Patent No. US20020022720A1
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                                                                APPLICANT: Le, Junming APPLICANT: Vilcek, Ja
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SOFTWARE: FastSEQ for
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PRIOR APPLICATION NUMBER: U.S. 08/570,674
PRIOR FILING DATE: 1995-12-11
PRIOR APPLICATION NUMBER: U.S. 08/324,799
PRIOR FILING DATE: 1994-10-18
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                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 157
TYPE: PRT
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APPLICATION NUMBER: U.S.
FILING DATE: 1992-09-11
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Daddona, Peter
Ghrayeb, John
Knight, David M.
Siegel, Scott
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Ghrayeb, John
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                                                                Vilcek, Jan
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Pred. No.
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                                                     PRIOR APPLICATION NUMBER: US 60/085,579
PRIOR FILING DATE: 1998-05-15
PRIOR APPLICATION NUMBER: US 60/113,621
PRIOR FILING DATE: 1998-12-23
NUMBER OF SEQ ID NOS: 26
SEQ ID NO 19
LENGTH: 157
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Best Local
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                                                                                                                                                                                                                                                                      APPLICANT: Wood, William I.
TITLE OF INVENTION: IL-17 HOMOLOGOUS POLYPEPTIDES AND THERAPEUTIC FILE REFERENCE: P1381R1C2
ORGANISM: HOMO
09-854-280-19
                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/854,280
CURRENT FILING DATE: 2001-55-10
PRIOR APPLICATION NUMBER: US 09/311,832
PRIOR FILING DATE: 1999-05-14
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PRIOR APPLICATION NUMBER: U.S
PRIOR APPLICATION DATE: 1994-02-04
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PRIOR FILING DATE: 2001-01-08
PRIOR APPLICATION NUMBER: U.S. 09/133,119
PRIOR FILING DATE: 1998-08-12
PRIOR APPLICATION NUMBER: U.S. 08/570,674
PRIOR FILING DATE: 1995-12-11
PRIOR PRIOR DATE: 1995-12-11
PRIOR APPLICATION NUMBER: U.S. 08/324,799
PRIOR FILING DATE: 1994-10-18
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NUMBER OF SEQ ID NOS:
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CURRENT FILING DATE: 2001-08-10
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TYPE: PRT
ORGANISM: Homo sapiens
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PRIOR FILING DATE: 1994-02-04
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                                         TYPE: PRT
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10; Conserv
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Gurney, Austin
Li, Hanzhong
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                    sapiens
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US-09-934-465-13
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LENGTH: 157
TYPE: PRT
                                                                PRIOR APPLICATION NUMBER: U.S. 08/324,799
PRIOR FILING DATE: 1994-10-18
PRIOR APPLICATION NUMBER: U.S. 08/192,102
PRIOR FILING DATE: 1994-02-04
PRIOR APPLICATION NUMBER: U.S. 08/192,861
PRIOR APPLICATION NUMBER: U.S. 08/192,861
PRIOR APPLICATION NUMBER: U.S. 08/192,093
PRIOR FILING DATE: 1994-02-04
PRIOR FILING DATE: 1994-02-04
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Best Local Similarity
Matches 10; Conserv
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Patent No. US20020106372A1
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CURRENT FILING DATE: 2001-08-21
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SOFTWARE: PatentIn Ver. 2.0
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                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/766,535A
                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: Anti-TNF Antibodies and Peptides of TITLE OF INVENTION: Human Tumor Necrosis Factor FILE REFERENCE: 0975.1005-010
                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Knight, David APPLICANT: Siegel, Scott
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PRIOR FILING DATE: 1995-12-11
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PRIOR FILING DATE: 1998-08-12
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APPLICATION NUMBER: U.S. FILING DATE: 1993-02-02
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Ghrayeb, John
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76.98;
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76.9%;
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Pred. No. 0.0033;
2; Mismatches
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Pred. No. 0.0033;
                08/013,413
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US-09-756-161A-1
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                                                                                                                       GENERAL
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Best Local Similarity 76.
Matches 10; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local :
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                APPLICANT:
                                                                                APPLICANT: Le, APPLICANT: Vil
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                                                   APPLICANT:
                                                                  APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 157
TYPE: PRT
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103 RETPEGAEAKPWY 115
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                                                                                                                     INFORMATION:
                                             Daddona, Peter
Ghrayeb, John
                             Knight, David M.
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                                                                                Vilcek, Jan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gurney, Austin
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; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 157
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-766-535A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: US 60/113,621
PRIOR FILING DATE: 1998-12-23
NUMBER OF SEQ ID NOS: 26
SEQ ID NO 19
                                                                                                                                                                                                           Sequence 1, Application US/09756161A Patent No. US20020132307A1
APPLICANT: Siegel, Scott
TITLE OF INVENTION: Anti-TNF Antibodies and Peptides
TITLE OF INVENTION: Human Tumor Necrosis Factor
FILE REFERENCE: 0975.1005-007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: US/09/311,832
PRIOR FILING DATE: 1999-05-14
PRIOR APPLICATION NUMBER: US 60/085,579
PRIOR FILING DATE: 1998-05-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: U.S. 07/670,827
PRIOR FILING DATE: 1991-03-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/854,208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Wood, William I.
TITLE OF INVENTION: IL-17 HOMOLOGOUS POLYPEPTIDES AND THERAPEUTIC
TITLE OF INVENTION: THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR FILING DATE: 1992-03-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: U.S.
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76.9%;
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2; Mismatches
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CURRENT APPLICATION NUMBER: US/09/736,161A

CURRENT FILING DATE: 2001-01-08

PRIOR APPLICATION UNMBER: US. 08/570,674

PRIOR FILING DATE: 1998-08-12

PRIOR APPLICATION UNMBER: US. 08/570,674

PRIOR PILING DATE: 1998-08-12

PRIOR PILING DATE: 1998-02-04

PRIOR PILING DATE: 1994-02-04

PRIOR APPLICATION NUMBER: US. 08/192,102

PRIOR PILING DATE: 1994-02-04

PRIOR APPLICATION NUMBER: US. 08/192,093

PRIOR APPLICATION NUMBER: US. 08/192,093

PRIOR PILING DATE: 1994-02-04

PRIOR PILING DATE: 1993-01-29

PRIOR PILING DATE: 1993-01-29

PRIOR PILING DATE: 1993-01-29

PRIOR PILING DATE: 1993-02-02

PRIOR PILING DATE: 1993-02-02

PRIOR PILING DATE: 1993-02-03

PRIOR APPLICATION NUMBER: US. 07/943,852

PRIOR APPLICATION NUMBER: US. 07/943,852

PRIOR PILING DATE: 1991-03-18

PRIOR APPLICATION NUMBER: US. 07/853,606

PRIOR PILING DATE: 1991-03-18

VOMBER OF SEQ 1D NOS: 19

SEQ ID NOS: 19

SEQ ID NOS: 19

SEQ ID NOS: 19

CONGANISM: Homo sapiens

US. 07/943,852

PRIOR PILING DATE: 1991-03-18

PRIOR APPLICATION SAPIENS

US-97-56-161A-1

OUET MATCH

DEST LOCAL SIMILARITY 76.9%; Pred. NO. 0.0033;

MATCHES 10; CONSETVATIVE 2; Mismatches 1; Indels 0: Gaps

OY 2 KDTPEGAELKPWY 14

Db 103 RETPEGAELKPWY 115

Search completed: April 4, 2003, 09:06:20

Job time: 8.80645 Secs
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Result
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Maximum DB
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Gapop 10.0 , Gapext 0.5
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                    AAY82194
AAR05469
AAR05513
AAR72456
                                                                                       AAY82197
AAY82198
                                                                                                                                       AAR60233
AAY82196
                                                                                                                        AAR60232
                                                                                                                                                                                                                                         SUMMARIES
Tumour necrosis fa
mTNF-alpha tip. S
Tumour necrosis fa
Murine TNF derived
Tumour necrosis fa
                                                                                                               hTNF-alpha tip.
Tumour necrosis
mTNF-alpha tip.
                                                                                                                                                                                    Description
RESULT 1
AAR60233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAR60233 standard; peptide; 17
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Tumour Tumour	Antitumour	Anti-tumour	Sequence of	Anti-tumour	Tumoricide	Human	Human	Human	Human TNF	Human TNE mutai	TNF polyment		Tumour	TNF-like	Polypeptide wit	New polypentid	Anti-tu	eouenbes		TNF analogue.	Modified	TNF-derived polype	Synthetic	Antitumour	Polype	C-terminal	Human tumour	Segmend

ALIGNMENTS

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WPI; 1994-279746/34
                              De Baetselier P,
                                                                                                                                                                                                                                                                                                                                    TNF-alpha; tumor necrosis factor-alpha; tip peptide; mutein; cancer; sepsis; inflammation; cytokine; metastasis; lectin; adhesion; mutagenesis; trypanoside.
                                                               (INNO-) INNOGENETICS NV SA.
                                                                                                 03-FEB-1993;
                                                                                                                                    02-FEB-1994;
                                                                                                                                                                      18-AUG-1994.
                                                                                                                                                                                                        W09418325-A
                                                                                                                                                                                                                                                      Misc-difference
                                                                                                                                                                                                                                                                                                           Synthetic.
                                                                                                 93EP-0400262
                                                                                                                                   94WO-EP00286.
                                                                                                                                                                                                                                  /note= "N-terminal biotin Gly-Gly"
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                              Fransen L,
                               Lucas
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                                                                                                                                                                                                                                                                                           14-AUG-1998;
18-SEP-1998;
21-OCT-1998;
of 7-17 contiguous amino acids derived from the Ser100-Glull6 region of human tumour necrosis factor-alpha (TNF-alpha), or Ser99-Glull5 region of mouse TNF-alpha, for treating oedema. The peptides form pharmaceutical compositions for treating oedema, especially pulmonary oedema. The peptides are non-toxic, whilst retaining the oedema resorption-inducing capacity as TNF. The present sequence represents a specifically claimed TNF-alpha circularised peptide from the presen
                                                                                                The present invention describes the use of peptides comprising a chain
                                                                                                                             Claim
                                                                                                                                                      Use of peptides derived from human or mou
factor-alpha (TNF-alpha), and comprising
for preventing or treating oedema -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The TNF-alpha tip peptides given in AAR60232-42 were modified with N-terminal biotin-Gly-Gly moietles and were used to demonstrate that the tip region of mouse and human TNF-alpha contains the trypanosomal and lectin-like activities of the molecule and is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New tumour necrosis factor -alpha muteins, antibodies and antisense peptide(s) - used in the treatment of diseases and conditions associated with the in vivo activities of TNF-A ec
                                                                                                                                                     for preventing
                                                                                                                                                                                                            WPI; 2000-282855/24.
                                                                                                                                                                                                                                                                                                                                                                          24-FEB-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tumour necrosis factor alpha; TNF-alpha; human;
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                                                                                                                                                                                                                                       Lucas
                                                                                                                                                                                                                                                                (INNO-) INNOGENETICS
                                                                                                                                                                                                                                                                                                                                                10-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                              Disulfide-bond
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            proinflammatory;
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17; Conserv
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                                                                                                                                                                                                                                    Baetselier P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                        98EP-0870180.
98EP-0870198.
98EP-0870222.
                                                                                                                                                     or treating oedema
                                                                                                                                                                                                                                                                                                                                              99WO-EP05806
                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers 1..17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  factor alpha derived circularised peptide #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            pulmonary oedema; cyclic.
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                                                                                                                                                              mouse tissue necrosis ing 7-17 contiguous amino acids,
                                                                                                                                                                                                                                      Bloc
                                                                                                                                                                                                                                    P,
                                                                                                                                                                                                                                      Fransen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mouse; oedema;
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                                                    Query Match
Best Local
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                                                                                                        N-terminal biortin-Gly-Gly moletiles and were used to demonstrate that the tip region of mouse and human TNF-alpha contains the trypanosomal and lectin-like activities of the molecule and is involved in TNF-induced lethal shock.
                                                                                     Sequence
                                                                                                                                                    The TNF-alpha tip peptides given in AAR60232-42 were modified with
                                                                                                                                                                                                        antisense peptide(s) - used in the trea conditions associated with the in vivo
                                                                                                                                                                                                                   New tumour necrosis factor -alpha muteins, antibodies and antisense peptide(s) - used in the treatment of diseases and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TNF-alpha; tumor necrosis factor-alpha; tip peptide; mutein; cancer; sepsis; inflammation; cytokine; metastasis; lectin; adhesion; mutagenesis; trypanoside.
                                                                                                                                                                        Disclosure; Page 61; 132pp; English.
                                                                                                                                                                                              cancer, sepsis, inflammation, etc
                                                                                                                                                                                                                                                                         De Baetselier P,
                                                                                                                                                                                                                                                                                                                    03-FEB-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mTNF-alpha
                                                                                                                                                                                                                                                    WPI; 1994-279746/34.
                                                                                                                                                                                                                                                                                             (INNO-) INNOGENETICS NV SA.
                                                                                                                                                                                                                                                                                                                                         02-FEB-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                   Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAR60232;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAR60232 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               invention
                                                                                                                                                                                                                                                                                                                                                              18-AUG-1994
          1 CGQRETPEGAEAKPWYC 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
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CGPKDTPEGAELKPWYC 17
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                                          l Similarity
13; Conserv
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17; Conser
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                                          Conservative
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                                                                                     ĀĀ;
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                                                                                                                                                                                                                                                                                                                   93EP-0400262
                                                                                                                                                                                                                                                                                                                                        94WO-EP00286
                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                       /note= "N-terminal biotin Gly-Gly"
                                                                                                                                                                                                                                                                         Fransen L,
                                                    83.8%;
76.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
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                                                    Score 88; DB 15;
Pred. No. 1.4e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 105; DB 21; Pred. No. 3.8e-09;
                                                                                                                                                                                                                                                                         Lucas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AA
                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                         ₽,
                                                                                                                                                                                                         activities of TNF-A
                                                                                                                                                                                                                                                                          Sablon
                                                             Length 17;
                                          Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
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RESULT 4 AAY82197

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RESULT 5
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Best Local S
Matches 13
Mus
                                                                                                                                                                                                                                                                                                                 The present invention describes the use of peptides comprising a chain of 7-17 contiguous amino acids derived from the Ser100-clul16 region of human tumour necrosis factor-alpha (TNF-alpha), or Ser99-clul15 region of mouse TNF-alpha, for treating oedema. The peptides form pharmaceutical compositions for treating oedema aspecially pulmonary oedema. The peptides are non-toxic, whilst retaining the oedema resorption-inducing capacity as TNF. The present sequence represents a specifically claimed TNF-alpha circularised peptide from the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-AUG-1998;
18-SEP-1998;
21-OCT-1998;
                      proinflammatory; pulmonary oedema
                               Tumour necrosis factor alpha; TNF-alpha;
                                                            Murine TNF
                                                                                  08-JUN-2000
                                                                                                         AAY82198;
                                                                                                                               AAY82198 standard;
                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 8; Page 16; 26pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Use of peptides derived from human or mouse tissue necrosis factor-alpha (TNF-alpha), and comprising 7-17 contiguous amino acids,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tumour necrosis factor alpha; TNF-alpha; human; mouse; oedema; proinflammatory; pulmonary oedema; cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2000-282855/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lucas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (INNO-) INNOGENETICS NV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-FEB-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200009149-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ds sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tumour necrosis factor alpha derived circularised peptide #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                    for preventing or treating oedema
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY82197;
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                                                                                                                                                                                                                                       Local Similarity
les 13; Conserv
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                                                                                                                                                                                                                CGQRETPEGAEAKPWYC 17
                                                                                                                                                                                          CGPKDTPEGAELKPWYC 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             standard; peptide;
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                                                         derived
                                                                                                                                                                                                                                                                                      17
                                                                                                                                                                                                                                       Conservative
                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Baetselier
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98EP-0870198.
98EP-0870222.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers 1..17
                                                                                                                              peptide;
                                                     peptide long tip peptide 99-115 (LTip).
                                                                                                                                                                                                                                                  83.8%;
76.5%;
                                                                                                                               19
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                                                                                                                                                                                                                                                Score 88; DB 21;
Pred. No. 1.4e-06;
                                                                                                                               Ŗ
                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bloc A,
                              human; mouse; oedema;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fransen L;
                                                                                                                                                                                                                                                           Length 17
                                                                                                                                                                                                                                      Indels
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AAY82194
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                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                     14-AUG-1998;
18-SEP-1998;
21-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-AUG-1998;
18-SEP-1998;
21-OCT-1998;
          Lucas
                              (INNO-) INNOGENETICS NV
                                                                                                                         24-FEB-2000
                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                          Tumour necrosis factor alpha; TNF-alpha; human; mouse; oedema; proinflammatory; pulmonary oedema.
                                                                                                                                                                                                                           Tumour necrosis factor alpha
                                                                                                                                                                                                                                                  08-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention describes the use of peptides comprising a chain of 7-17 contiguous amino acids derived from the Ser100-Glul16 region of human tumour necrosis factor-alpha (TNF-alpha), or Ser99-Glul15 region of mouse TNF-alpha, for treating oedema. The peptides form pharmaceutical compositions for treating oedema, especially pulmonary oedema. The peptides are non-toxic, whilst retaining the oedema resorption-inducing capacity as TNF. The present sequence represents a murine TNF derived peptide used in an example from the present
                                                                                                   10-AUG-1999;
                                                                                                                                              WO200009149-A1
                                                                                                                                                                                                                                                                                             AAY82194 standard; peptide; 14 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Use of peptides derived from human or mouse tissue factor-alpha (TNF-alpha), and comprising 7-17 contifor preventing or treating oedema
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 1; Page 7; 26pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2000-282855/24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lucas R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (INNO-) INNOGENETICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-AUG-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                 l Similarity
13; Conserv
          De
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                                                                                                                                                                                                                                                                                                                                                                                                                                               19
                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
        Baetselier P,
                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                              AA;
                                                   98EP-0870180.
98EP-0870198.
98EP-0870222.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98EP-0870180.
98EP-0870198.
98EP-0870222.
                                                                                                 99WO-EP05806
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                                                                                                                                                                                                                                                                                                                                                                                                            83.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ¥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Α,
                                                                                                                                                                                                                                                                                                                                                                                              Score 88; DB 21; Le
Pred. No. 1.6e-06;
Pred. No. 1.6e-2;
       Pugin J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pugin
                                                                                                                                                                                                                          derived peptide #1
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        Bloc
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       A,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   contiguous amino acids,
       Fransen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fransen
                                                                                                                                                                                                                                                                                                                                                                                                                     Length 19;
                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            necrosis
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Best Local S
Matches 14
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                                                    PGPQGP or
                                                            A- QRETPEGAEAKP, HRETPEWAEAKP,
                                                                       tormula
                                                                                 This peptide is
                                                                                                                                  New tumour necrosis factor derived neoplastic and autoimmune diseases, transplant rejection.
  covalent
                                                                                            To residue
                                                                                                                                                                            WPI; 1990-186576/25
                                                                                                                                                                                                                                          12-DEC-1988;
                                                                                                                                                                                                                                                             12-DEC-1988;
                                                                                                                                                                                                                                                                                                     DE3841759-A
                                                                                                                                                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                             disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Use of peptides derived from human or mouse tissue necrosis factor-alpha (TNF-alpha), and comprising 7-17 contiguous amino acids, for preventing or treating oedema
                                                                                                                                                                                                                   (BADI )
                                                                                                                                                                                                                                                                                                                                                                          Tumour necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                   AAR05469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim
                                                                                                                                                                                                                                                                                                                                                                                               23-OCT-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                      AAR05469 standard;
       H or an amino protecting group; OH, NH2 or carboxy protecting g
                             G-NH-CHM-CO, G-NH-CHM-CO-W, G-R-NH-CHM-CO
2, NH-CHQ-COZ, V-NH-CHQ-COZ, NH-CHQ-CO-U-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         띰
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5; Page 16; 26pp; English.
                                                                                                                                                                                                                                                                                                                                            necrosis fac
e; infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14;
                                                                                                                                                                                                                     BASF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
  bond
                                                                                                                                                                                                Daum
                                                  PGLQGP;
                                                                                           S1 is attached
                                                                                                              Page 7; 16pp; German.
                                                                                                                                 rejection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                     X-A-Y
                                                                                                                                                                                               Ľ,
                                                                                                                                                                                                                                         88DE-3841759
                                                                                                                                                                                                                                                            88DE-3841759
                                                                                 an example
                                                                                                                                                                                                                                                                                                                                            factor; TNF; neop
ion; inflammation;
                                                                                                                                                                                                                                                                                                                                                                          factor derived
  the
                                                                                                                                                                                               Haupt
                                                                                                                                                                                                                                                                                                                                                                                                                                      protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.08; **
gp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      77.1%;
 CO(CH2)aNH;
                                                                                                                                                                                                P
                                                                                 e Ac
                                                                                                                                                                                                                                                                                                                                                                                                                                      17
                                                                                                                                                                                                                                                                                                                                                      neoplastic disease;
                                                                                                                                                                                               Schmied
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 81;
Pred. No.
                                                                              and to residue T17 a highly generic so
                                                           HRETPEEAEPMA,
                                                                                                                                                                                                                                                                                                                                                                         peptide
                             NH-CHQ-CO-U-Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
group; or G
NH; a=1-12;
                                                                                                                                                                                                                                                                                                                                          transplant rejection.
                                                                                                                                           peptides- for infection,
                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.4e-05;
hes 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB
                                                                                                                                                                                               Walker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21;
         and
                                                           PRDTPEGAELKP,
                                                                                                                                           for treating on n, inflammation
                                      or G-R-NH-CHM-CO-W;
                            or V-NH-CHQ-CO-U-Z;
                                                                              sequence of
                                                                                                                                                                                              ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 14;
         2
                                                                                         NH2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
        together
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                                                                                 the
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i
                                                          PGLQEP
                                                                                                                                           r preventing and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
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RESULT 8
AAR05513
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Best Local Similarity
Whiches 14; Conserv.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QУ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A= QRETPEGAEAKP, HRETPEWAEAKP, HRETPEEAEPMA, PRDTPEGAELKP, PGLQEP PGPQGP or PGLQGP, X= G-NH-CHM-CO, G-NH-CHM-CO-W, G-R-NH-CHM-CO or G-R-NH-CHM-CO-W; X= G-NH-CHQ-COZ, V-NH-CHQ-COZ, NH-CHQ-CO-U-Z or V-NH-CHQ-CO-U-Z G- H or an amino protecting group; COUNTY or Carboxy protecting group; or G and Z together are covalent bond or the gp. CO(CH2)aNH; a=1-12;
                                                                         To residue S1 is attached Ac and to residue Y22 NH2. Residues Orn4 and Asp22 together form a covalent bond. This peptide is an example of a highly generic sequence formula X-A-Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1990-186576/25
                                                                                                                                                                                                 Bohm HJ,
                                                                                                                       Example 37; Page 12; 16pp; German
                                                                                                                                         transplant
                                                                                                                                                    neoplastic
                                                                                                                                                             New tumour
                                                                                                                                                                                                                                     12-DEC-1988;
                                                                                                                                                                                                                 (BADI ) BASF AG
                                                                                                                                                                                                                                                      12-DEC-1988;
                                                                                                                                                                                                                                                                                           DE3841759-A
                                                                                                                                                                                                                                                                                                                               Misc-difference
                                                                                                                                                                                                                                                                                                                                                                            disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                            AAR05513;
                                                                                                                                                                                                                                                                         13-JUN-1990
                                                                                                                                                                                                                                                                                                                                                                                     Tumour
                                                                                                                                                                                                                                                                                                                                                                                                       Tumour
                                                                                                                                                                                                                                                                                                                                                                                                                        23-OCT-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAR05513 standard; protein; 25 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QRETPEGAEAKPWY 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QRETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                                                                          necrosis factor; TNF; neoplastic disea
e; infection; inflammation; transplant
                                                                                                                                                                                                                                                                                                                                                                                                      necrosis
                                                                                                                                                                                               Daum L,
                                                                                                                                                necrosis factor derived peptides- for treating or and autoimmune diseases, infection, inflammation \boldsymbol{\epsilon}
                                                                                                                                         rejection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AA;
 peptide chains
                                                                                                                                                                                                                                     88DE-3841759
                                                                                                                                                                                                                                                       88DE-3841759
                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                     factor derived peptide
                                                                                                                                                                                                                                                                                                             /note="Ornithine"
                                                                                                                                                                                                                                                                                                                       /label=OTHER
                                                                                                                                                                                               Haupt A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       77.1%;
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                                                                                                                                                                                                Schmied
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       . No.
naturally occuring alpha aminoacids;
                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 11;
1.7e-05;
                                                                                                                                                                                                                                                                                                                                                                                 disease;
                                                                                                                                                                                               Walker
                                                                 PRDTPEGAELKP, PGLQEP
                                     or V-NH-CHQ-CO-U-Z;
                                                                                                                                                                                               'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                   autoimmune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                              Zechel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17;
                                                                                   of.
                                                                                   the
                                                                                                                                                                                              JC;
                                                                                                                                                 r preventing and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .Gaps
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RESULT 9
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Best Local Similarity
Matches 14; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ouery Match 77.1%; Score 81; DB Best Local Similarity 100.0%; Pred. No. 2: Matches 14; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      M and Q= H, isopropyl, CHMe.Et, phenyl, CH(OH), 3-indolyl- or 4-imidazoly-methyl or (CH2)bT; b=1-6; T= OH, MeO, MeS, isopropyl, phenyl (opt. 4-OH, substd.), HS, NH2, CONH2, or NH2 C (NH) NH; or M ans O together are (CH2)c-S-S-(CH2)d, (CH2)eCO NH-(CH2)f or (CH)2eNH CO(CH2)gNH CO(CH2) f; c and d=1-4; e and f=1-6; g=1-12. The peptide is a low mol. wt. deriv. of TNF. See also DE3841753-55, DE3841759, DE3841761-64, DE3841767-68.
                                                                                                                                                                                                                                                                                                                                                                                                                                   The amino acid sequence of a part of the 4th exon from the tumour necrosis factor (TNF)-alpha. The protein has the peptide AAR72454 attached to the N-terminal amino acid. The fusion protein can be used in pharmaceutical compositions for inhibiting metastasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAR72456 standard;
                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 5; 14pp; Chinese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pharmaceutical and veterinary composition for inhibiting - can be made into tablet form % \left( 1\right) =\left\{ 1\right\} =\left\{
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sonamoto I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TW239078-A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tumour necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tumour necrosis factor-alpha 4th exon fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAR72456;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1995-168947/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (MIZU/) MIZUNO D.
(SONA/) SONAMOTO I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-OCT-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-JAN-1995.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-DEC-1995
85
                                                                                   ω
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QRETPEGAEAKPWY 98
                                         QRETPEGAEAKPWY 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QRETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                                                             140 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25 AA;
                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       93JP-0020556.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           factor; fusion protein; metastasis; inhibition.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note= "This residue has the peptide AAR72454
    attached at the N-terminus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein; 140 AA.
                                                                                                                                                     77.1%; >--
100.0%; Pr
''' 0;
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                                                                                                                                                                   Score 81; DB; Pred. No. 0.0 0; Mismatches
                                                                                                                                                                                                                 DB 16; 1
0.00014;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 11; 1
2.5e-05;
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                                                                                                                                                                                                                                                       Length 140;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           metastasis
                                                                                                                                                                   0;
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                                                                                                                                                              Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                соон,
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RESULT 11
AAP81853
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AAP82043
ID AAP82
XX
AC AAP82
XX
 Вb
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                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 14; Conserv
                                                                                                                                                                                                                                                                                                                                                                 New biologically active polypeptide has cytotoxic activity specifically for tumour cells and, therefore, is expected to be used as an anticancer drug. It is derived from human TNF by deleting 11 N-terminal AAs. (See also J63188396, AAN81624 and AAP81236).
WPI; 1988-010365/02
                                     21-MAY-1986;
                                                        21-MAY-1986;
                                                                                                JP62272991-A.
                                                                                                                  Homo sapiens
                                                                                                                                     Antitumour; anticancer; cytostatic.
                                                                                                                                                        Sequence of modified human tumour necrosis factor (hTNF).
                                                                                                                                                                            17-DEC-1990
                                                                                                                                                                                               AAP81853;
                                                                                                                                                                                                                 AAP81853 standard; protein;
                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 2(1); Page 547; 17pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1988-080331/12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-JUL-1986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence of new
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12-DEC-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAP82043;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAP82043 standard; protein; 145
                 (TEIJ ) TEIJIN KK.
                                                                            27-NOV-1987.
                                                                                                                                                                                                                                                                                                                                                                                                                                      New biologically active polypeptide - useful as anticancer agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-JUL-1986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12-FEB-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JP63032486-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Anticancer drug; lymphokine; antitumour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (TEIJ ) TEIJIN KK.
                                                                                                                                                                                                                                                                   91 QRETPEGAEAKPWY 104
                                                                                                                                                                                                                                                                              3 QRETPEGAEAKPWY 16
                                                                                                                                                                                                                                                                                                                                                145 AA;
                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                            (first entry)
                                                        86JP-0114754.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   86JP-0173822
                                    86JP-0114754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     86JP-0173822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     tumour necrosis
                                                                                                                                                                                                                                                                                                                  77.1%;
                                                                                                                                                                                                                 147
                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                  Score 81;
Pred. No.
                                                                                                                                                                                                                  A
                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                  DB 9; L
                                                                                                                                                                                                                                                                                                                          Length 145;
                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                        Gaps
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RESULT 12
AAB672245
AAB672245
AC AAB67
XX AAB67
XX Huma
XX Huma
XX Homc
XX Homc
XX WO21
XX E 26-
XX AAB67
XX C G
YA C G
Y
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       Query Match
Best Local S
Matches 14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                          The present invention relates to a formulation comprising Apo-2 ligand and divalent metal ions. Apo-2 ligand and the formulation are useful for treating cancers and viral infections. Addition of divalent metal ions for making Apo-2 ligand and formulations containing Apo-2 ligand results in increased yield and stability
                                                                                                                                                                                                                                                                                                                                                                         Use of divalent metal ions for making Apo-2 ligand and in formulations containing Apo-2 ligand for increasing yield and stability of ligand trimers, useful for therapeutic applications -
                                                                                                           Sequence
                                                                                                                                                          containing Apo-2 ligand results of Apo-2 ligand trimers.
                                                                                                                                                                                                                                                                                The present invention relates to a formulation
                                                                                                                                                                                                                                                                                                                               Disclosure; Fig 3; 60pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ashkenazi AJ,
O'Connell M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-JUN-2000; 2000WO-US17579.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-JAN-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human tumour necrosis factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA sequence encoding hTNF was synthesised chemically and inserted into vector plasmid. Recombinant plasmid was cut with restriction enzyme and DNA fragment coding for new bioactive polypeptide was obtd. The new bioactive polypeptide has ten N-terminal AAs deleted. It has antitumour activity greater than hTNF and can be produced by culturing bacteria transformed with a plasmid contg. DNA encoding the polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAB67245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New bioactive polypeptide -
has antitumour activity, and is obtd. by culturing bacteria
transformed with plasmid contg. DNA sequence of the polypeptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2001-123012/13.
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                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
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                                                                                                           147
  77.1%; So ilarity 100.0%; F Conservative 0;
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                                                                                                        ΑĄ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hymowitz S, Kei
Pai R, Shahrokh
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  Score 81; DB Pred. No. 0.0 0; Mismatches
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                       DB 22; 1
0.00014;
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                                               Length 147;
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The present invention relates to Tumour necrosis factor (TNF) and

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2001-016094/02

Example 1;

Fig 1b; 112pp;

English

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RESULT 13
AAY71982
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01-MAY-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  haemolytic anaemia; Grave's disease; Goodpasture's Syndrome; post-streptococcal glomerulonephritis; polyarteritis nodosa; BCMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      therapy; autoimmune disorder; rheumatoid arthritis; multiple sclerosis; systemic lupus erythematosus; SLE; insulin dependent diabetes mellitus;
                                                                                                                                                                                                                                                                                     (NAJE-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Region
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C-terminal region of human Tumour Necrosis Factor (TNF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY71982;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tumour necrosis factor and ApoL-related Leucocyte expressed Ligand 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ystemic lupus erythematosus; SLE; insulin dependent diabetes mellitus; hrombocytopenia purpura; acute rheumatic fever; myasthenia gravis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cell maturation factor; pemphigus vulgaris; B-lymphocyte proliferation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           92
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QRETPEGAEAKPWY
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                                                                                                                                                                                                                                                                                     NAT
                                                                                                                                                                                                                                                                                  JEWISH MEDICAL & RES CENT
                                                                                                                                                                                                                                                                                                                              99US-0132892.
2000US-0201012.
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RESULT 14
AAP91635
                                                                                                           Query Match
Best Local :
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Best Local :
                                                                                                                                                                                                                                   The recombinant polypeptide expressed by E.coli transformed with pTNF482, has antitumour activity with greater specific activity and stability than natural h-TNF, and which causes less side effects.
                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                      Claim 1; page 1; 18pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Apol-related Leucocyte expressed Ligand 1 (TALL-1) nucleic acid molecules, proteins (including homologues), and their antibodies. The invention in particular relates to methods for regulating the interaction between TALL-1 and TALL-1 receptors (BCMA referred as B cell maturation factor) to regulate monocyte, macrophage and B lymphocyte mediated immune responses. TALL-1 protein is useful for identifying compounds that regulate B lymphocyte proliferation. It is also useful for treating B lymphocyte associated autoimmune disorders like rheumatoid treating B lymphocyte associated autoimmune disorders like rheumatoid
                                                                                                                                                                                                                                                                                                                                                                                    New phisiologically active polypeptide - with antitumour activity
                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-PSDB; AAN94432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-JUL-1987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-JUL-1987;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tumour necrosis factor; antitumour activity; pTNF482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Polypeptide derived from human tumour necrosis factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        arthritis, systemic lupus erythematosus (SLE), insulin dependent diabetes mellitus, multiple sclerosis, myasthenia gravis, Grave's disease, autoimmune haemolytic anaemia, autoimmune thrombocytopenia purpura, Goodpasture's syndrome, pemphigus vulgaris, acute rheumatic fever, post-streptococcal glomerulonephritis, or polyarteritis nodosa.

The TALL-1 protein and its corresponding nucleic acid sequence are also useful in discocritic scere.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1989-072158/10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (TEIJ ) TEIJIN KK.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          useful in diagnostic assays.

The present sequence is a C-terminal region of human Tumour necrosis factor (7MF) which has 20-25% sequence identity with C-terminal region of human TALL-1 protein extracellular domain.
                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
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QRETPEGAEAKPWY 16
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                                                                                                                                                                                      149 AA;
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                                                                             Conservative
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100.08; Pr
                                                                        77.1%; Score 81; DB 100.0%; Pred. No. 0.0 tive 0; Mismatches
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Pred. No. 0.00014;
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                                                                                                   DB 10; I
0.00015;
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                                                                                                                             Length 149;
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                                                                             Indels
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RESULT 15
AAR05612
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                                                                                          Query Match
Best Local :
                                                                                  Matches
                                                                                                                                             DNA is synthesised from 17 oligonucleotides TNF-1 to TNF-17 The gene product may be truncated by 12 N-terminal AAs, and residue Leu-157 may be replaced by Phe
                                                                                                                                                                                                         New physiologically active polypeptide - contains specific amino acid sequence, shows antitumour effect and has low side effect.
                                                                                                                           Sequence
                                                                                                                                                                                       Disclosure; ; 18pp; Japanese.
                                                                                                                                                                                                                                                   N-PSDB; AAQ05038
                                                                                                                                                                                                                                                             WPI; 1990-196692/26.
                                                                                                                                                                                                                                                                                                      09-NOV-1988;
                                                                                                                                                                                                                                                                                                                                                                                                           Antitumour;
                                                                                                                                                                                                                                                                                                                                                                                                                               Antitumour peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAR05612;
                                                                                                                                                                                                                                                                                                                          09-NOV-1988;
                                                                                                                                                                                                                                                                                                                                               17-MAY-1990
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                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAR05612 standard; protein; 149 AA
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                                          95
                                                                                         Local
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                                                             3 QRETPEGAEAKPWY 16
                                        QRETPEGAEAKPWY
                                                                                 l Similarity 100.
14; Conservative
                                                                                                                           149 AA;
                                                                                                                                                                                                                                                                                                                                                                                                            cancer; tumour necrosis factor;
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                                                                                                                                                                                                                                                                                                                          88JP-0281364.
                                          108
                                                                                           100.0%;
         2003, 08:39:55
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Pred. No.
                                                                                  Mismatches
                                                                                           DB 11; 1
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                                                                                                     Length 149;
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Result
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Listing first 45 summaries
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Perfect score:
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     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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                                                                               seq length: 0 seq length: 2000000000
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Match
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Gapop 10.0 , Gapext 0.5
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                               PIR_73:*
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D69373
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AH2218
F75440
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methylmalonyl-CoA
Xin protein, stage
IMP dehydrogenase
bis(5'-nucleosyl)-
                                      hypothetical prote membrane-bound mul hypothetical prote receptor like prot methylmalonyl-Coa
                                                                                                                                                               tumor necrosis fac
                                                                                      hypothetical prote
hydrogenase-4 comp
related to SGT1 pr
telomere repeat-bi
                                                                                                                           hypothetical prote methylmalonyl-CoA
                                                                                                                                              immunogenic protei
tumor necrosis fac
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1999 #text_change McGraw, R.A. is factor alpha. D:2216741 DN:CAAA37949.1; PI auli, U. DN:CAA38639.1; PI oor residue 202 as gh, M.P. 91 DN:CAA40591.1; PI DN:CAA40591.1; PI DN:2AA40591.1; PI DN:2AA40591.1; PI DN:2AA40591.1; PI DN:2AF420 DDBJ /DDBJ /DDBJ /DDBJ /DDBJ /DDBJ /DDBJ /DDBJ /DDBJ /DDBJ /DDBJ /DDBJ /DDBJ /DDBJ /DDBJ /BTDBJ	30 43 41.0 733 2 B40595 31 43 41.0 879 1 QRRTLD 32 43 41.0 1021 2 F82230 33 43.0 1021 2 F82230 34 41.0 1216 2 T09224 35 42.5 40.5 1297 2 T30274 36 42 40.0 187 2 C751316 37 42 40.0 220 2 E72204 38 42 40.0 350 2 A10924 40.0 350 2 A10924 40.0 40.0 20 2 D70605 39 42 40.0 836 2 JE0248 40 42 40.0 836 2 JE0248 41 42 40.0 836 2 JE0248 41 42 40.0 1539 2 G70630 41 42 40.0 1539 2 G70630 42 40.0 4544 1 S02392 43 41.5 39.5 1002 2 T43236 41 41 39.0 331 2 A83678 ALIGNMENTS ALIGNMENTS
pha. 1; PID:g2136 sequence and comparative a sequence and comparative a general comparative a pha. 1; PID:g2134 1; PID:g2138 1; PID:g214695	methylmalonyl-CoA LDL receptor precu conserved hypothet spindle assembly c proteoliaisin - se hypothetical prote hypothetical prote hypothetical prote probable bacteriop probable arginine interleukin-4 rece ATP-Dinding casset probable ctpH prot alpha-2-macroglobu alpha-2-macroglobu alpha-2-macroglobu carboxypeptidase C hypothetical prote

Query Match Best Local Similarity

77.1%; 100.0%;

Score 81; Pred. No.

DB 1; Length 232; 3.6e-05;

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A;Title: O-Glycosylated species of natural human tumor-necrosis A;Reference number: S62610; MUID:96202967; PMID:8631363 A;Accession: S62610
                                                                                                                                                                   A; Experimental source: U-937 cells R; Takakura-Yamamoto, R.; Yamamoto,
                                                                                                                                                                                                                                                                  A; Molecule type: DNA
A; Residues: 1-233 <M
                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: protein
A; Molecule type: protein
A; Residues: 83-109-119; 121-128, 'X', 130-131; 142-144, 'X', 146, 'XXX', 150-152; 159-174; 180
R; Marmenout, A; Fransen, L; Tavernier, J; Van Der Heyden, J; Tizard, R; Kawashima,
Eur. J. Biochem. 152, 515-522, 1985
A; Title: Molecular cloning and expression of human tumor necrosis factor and comparison
A; Reference number: 153311; MUID:86030296; PMID:3932069
A; A; Ccession: 153311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Molecule type: mRNA
A;Residues: 1-62,'S',64-233 <WAN>
A;Residues: 1-62,'S',64-233 <WAN>
A;Cross-references: GB:M10988; NID:g339737; PIDN:AAA61198.1; PID:g339738
R;Fukuda, S.; Ando, S.; Sanou, O.; Taniai, M.; Fujii, M.; Masaki, N.; Nakamura,
Lymphokine Res. 7, 175-185, 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references: GB:X02910; GB:X02159; NID:g37209; PIDN:CAA26669.1; PID:g37210 A;Note: this protein was isolated from the monocyte-like cell line HL-60 from a pr R;Wang, A.M.; Creasey, A.A.; Ladner, M.B.; Lin, L.S.; Strickler, J.; Van Arsdell, Science 228, 149-154, 1985
A;Title: Molecular cloning of the complementary DNA for human tumor necrosis facto A;Reference number: A44189; MUID:85142190; PMID:3856324
A;Accession: A44189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: GB:X02910; GB:X02159; NID:g37209; PIDN:CAA26669.1; PID:g37210 R;Ir1s, F.J.M.; Bougueleret, L.; Prieur, S.; Caterina, D.; Primas, G.; Perrot, V.; Jurk Nature Genet. 3, 137-145, 1993
A;Title: Dense Alu clustering and a potential new member of the NFkappaB family within A;Reference number: S36152; MUID:93272029; PMID:8499947
A;Accession: S36153
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C;Date: 28-Aug-1985 #sequence_revision 28-Aug-1985 #text_change 08-Dec-2000
C;Accession: A93585; S36153; A93381; A44189; B61478; I53311; S62610; I54522; A01646; R;Nedwin, G.E.; Naylor, S: Sakaguchi, A.Y.; Smith, D.; Jarrett-Nedwin, J.; Pennica Nucleic Acids Res. 13, 6361-6373, 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: mRNA
A; Residues: 1-233 <PEN>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Title: Human tumour necrosis factor: precursor structure, A;Reference number: A93351; MUID:85086244; PMID:6392892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: EMBL:215026; NID:g37211; PIDN:CAA78745.1; PID:g37212
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, August 1992
R;Pennica, D.; Nedwin, G.E.; Hayflick, J.S.; Seeburg, P.H.; Derynck, R.; Palladino,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
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A; Residues: 1-233 <NED>
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A;Accession: A93585
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                                                                                                                             Takakura-Yamamoto, R.; Yamamoto, S.; Fukuda, S.; Kurimoto, xr. J. Biochem. 235, 431-437, 1996
                                                                                                                                                                                                         Residues: 1-233 <MAR>
Cross-references: GB:M26331; NID:g339763; PIDN:AAA36758.1; PID:g339764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;Title: Simultaneous production of natural human tumor;Reference number: A61478; MUID:88301617; PMID:2841543;Accession: B61478
                                                                                                                                                                                                                                                                                                                       Status: translated from GB/EMBL/DDBJ
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Arsdell, J.N.;
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Conservative
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C;Superfamily: tumor necrosis factor C;Keywords: glycoprotein; lipoprotein; myristylation; transmembrane F;19,20/Binding site: myristate (Lys) (covalent) #status predicted F;81/Binding site: carbohydrate (Ser) (covalent) #status predicted F;145-177/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Introns: 62/3; 78/1; 94/1
C;Complex: homotrimer
C;Superfamily: tumor necrosis factor
C;Keywords: cytokine; cytotoxin; glycoprotein; homotrimer; lipoprotein;
F;1-76/Domain: propeptide #status predicted <PRO>
F;77-73yProduct: tumor necrosis factor #status experimental <MAT>
F;19,20/Binding site: myristate (Lys) (covalent) #status experimental
F;81/Binding site: carbohydrate (Ser) (covalent) (partial) #status exper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Sanjanwala, M.; Edwards, A. submitted to the EMBL Data Library, September 1991 A;Description: Baboon Tumor Necrosis Factor Derived
                                                                                                                                                                                                                                                                                                  A;Cross-references: EMBL:X62141; NID:g38159; PIDN:CAA44068.1; PID:g38160
                                                                                                                                                                                                                                                                                                                                        A; Molecule type: DNA
A; Residues: 1-233 <SAN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C:Species: Papio sp. (baboon)
C:Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change
                                                                                                                                                                                                                                                         A; Introns: 62/3; 78/1; 94/1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Comment: Secreted from mitogen-activated macrophages within 4-24 hours after in out detriment to normal cells. It can also act synergistically with interferon gz C;Comment: TNF-alpha and -beta (lymphotoxin) are the products of different genes ut are produced by different cell types and have different induction kinetics.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tumor necrosis factor alpha precursor - baboon
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A; Introns: 62/3; 78/1; 94/1
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A; Cross-references: GDB:120441;
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A;Title: Human tumor necrosis factor. Production, purification, A;Reference number: A92511; MUID:85130974; PMID:3871770
A;Contents: annotation; disulfide bond
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R;Stevenson, F.T.; Bursten, S.L.; Locksley, R.M.; Lovett, D.H.
J. Exp. Med. 176, 1053-1062, 1992
A;Title: Myristyl acylation of the tumor necrosis factor alpha
A;Reference number: A59163; MUID:93018820; PMID:1402651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       x;U'Alfonso, S.; Richiardi, P.M.
Immunogenetics 39, 150-154, 1994
A;Title: A polymorphic variation in a putative regulation box
A;Reference number: I54522; MUID:94102809; PMID:7903959
A;Accession: I54522
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Best Local Similarity
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                                                                                                              bonds: #status predicted
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                             100.0%;
                                                            77.18;
                             Score 81;
Pred. No
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Pred. No.
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3.6e-05;
hes 0;
                                                       DB 1;
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3.6e-
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s 0;
                                                 Length 233
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Mismatches

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Gaps

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Nucleic Acids Res. 18, 5563, 1990
A, Fittle: Gene sequence of feline tumor necrosis factor alpha.
A; Reference number: S11688; MUID:91016860; PMID:2216740
A; Accession: S11688
tumor necrosis factor alpha precursor - bovine C;Species: Bos primigenius taurus (cattle) C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 C;Accession: I46047; S24642 R;Cludts, I.; Cleuter, Y.; Kettmann, R.; Burny, A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Description: Cloning and A; Reference number: S52715 A; Accession: S52715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tumor necrosis factor alpha precursor - bovine (fragment)
C;Species: Bos primigenius taurus (cattle)
C;Date: 19-May-1995 #sequence_revision 21-Jul-1995 #text_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Introns: 62/3; 78/1; 94/1
C;Superfamily: tumor necrosis factor
C;Superfamily: tumor necrosis factor
C;Keywords: glycoprotein; lipoprotein; myristylation; transmembrane
F;19,20/Binding site: myristate (Lys) (covalent) #status predicted
F;81/Binding site: carbohydrate (Ser) (covalent) #status predicted
F;145-177/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tumor necrosis factor alpha precursor - cat
c; Species: Felis silvestris catus (domestic cat)
C; Date: 21-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 04-Feb-2000
C; Accession: S11688
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A;Molecule type: DNA
A;Residues: 1-233 <MCG>
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R; Mertens, B.;
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Best Local
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les 12; Conser
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                                                                                                                                                                                                 RETPEWAEAKPWY 143
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92.3%;
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                                                                                                                                                                                                                                                                                                      Score 68;
Pred. No.
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  Α.
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                                          #text_change
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  Droogmans,
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A,Cross references: EMBL:X55966; NID:g1403; PIDN:CAA39437.1; PID:g1404
A;Note: comparison with the introns of homologous sequences suggest that this is |
C;Superfamily: tumor necrosis factor
C;Keywords: alternative splicing; cytokine; cytotoxin; glycoprotein; lipoprotein;
F;1-77/Domain: propeptide #status predicted <PRO>
F;1-77/Domain: propeptide #status predicted <PRO>
F;78-234/Product: tumor necrosis factor alpha #status predicted
F;82/Binding site: myristate (Jsy) (covalent) #status predicted
F;82/Binding site: carbohydrate (Ser) (covalent) #status predicted
F;96/Binding site: carbohydrate (Asn) (covalent) #status predicted
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A;Title: Molecular cloning, expression and characterization c A;Reference number: S48118; MUID:92155784; PMID:1786996
A;Accession: S48118
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A;Title: Cloning and characterization of the tandemly arranged bovine lymphotoxin A;Reference number: I46046; MUID:94083525; PMID:8260599
A;Accession: I46047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Young, A.J.; Hay, J.B.; Chan, J.Y.C.

Nucletc Acids Res. 18, 6723, 1990
A;Title: Primary structure of ovine tumor necrosis factor alpha cDNA
A;Reference number: S13114; MUID:91067496; PMID:2251151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gene 109, 203-210, 1991
A; Title: Sequence of the cDNA encoding ovine tumor necrosis
A; Reference number: JH0529; MUID:92112044; PMID:1765267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Species: Ovis orientalis aries, Ovis ammon aries C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 C;Accession: JH0529; S48118; S13114; S20661
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                                                                                      F;146-178/Disulfide
                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: mRNA
A; Residues: 1-62,64-234 <YOU>
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A; Residues: 1-234 <NAS>
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A; Residues: 1-234 <GRE>
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Gene 109, 203-2
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A; Residues: 1-233 <CL2>
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12; Conserv
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Score 66; I
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Pred. No. 0
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                                                                                   predicted
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                       Length 234;
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Local

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A;Molecule type: mRNĀ
A;Residues: 1-230,'R',232-235 <RES>
A;Residues: 1-230,'R',232-235 <RES>
A;Residues: 1-230,'R',232-235 <RES>
A;Cross-references: GB:M13049; NID:g202082; PIDN:AAA40457.1;
A;Cross-references: GB:M13049; NID:g202082; PIDN:AAA40457.1;
R;Sherry, B; Jue, D.M.; Zentella, A; Cerami, A.
Biochem. Biophys. Res. Commun. 173, 1072-1078, 1990
Biochem. Biophys. Res. Commun. 173, 1072-1078, 1990
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A; Residues: 1-235 <SHA>
A; Cross-references: GB: M38296; NID: g202086; PIDN: AAA40459.1; PID: g202087
A; Cross-references: GB: M38296; NID: g202086; PIDN: AAA40459.1; PID: g202087
A; Cross-references: GB: M38296; NID: g202086; PIDN: AAA40459.1; PID: g202087
A; Cross-references: GB: M38296; NID: g202086; PIDN: AAA40459.1; PID: g202087
A; Cross-references: GB: M38296; NID: g202086; PIDN: AAA40459.1; PID: g202087
A; Cross-references: GB: M38296; NID: g202086; PIDN: AAA40459.1; PID: g202087
A; Cross-references: GB: M38296; NID: g202086; PIDN: AAA40459.1; PID: g202087
A; Cross-references: GB: M38296; NID: g202086; PIDN: AAA40459.1; PID: g202087
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A; Cross-references: GB: M38296; NID: g202086; PIDN: AAA40459.1; PID: g202087
A; Cross-references: GB: M38296; NID: g202086; PIDN: AAA40459.1; PID: g202087
A; Cross-references: GB: M38296; NID: g202086; PIDN: AAA40459.1; PID: g202087
A; Cross-references: GB: M38296; NID: g202086; PIDN: AAA40459.1; PID: g202087
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A; Cross-references: GB: M38296; NID: g202086; PIDN: AAA40459.1; PID: g202087
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A; Cross-refere
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A;Title: Identification of a common nucleotide sequence in the 3, Reference number: 159058; MUID:86149365; PMID:2419912
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R;Shakhov, A.N.; Nedospasov, S.A.
Bioorg. Khim. 13, 701-705, 1987
A;Title: Molecular cloning of the genes coding for tumor A;Reference number: S03791; MUID:87298639; PMID:3040015
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J. Biol. Chem. 264, 16256-16260, 1989
A;Title: Alternative cleavage of the cachectin/tumor necrosis A;Reference number: A34251; MUID:89380231; PMID:2777790
A;Accession: A34251
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A; Residues: 1-235 <FRA>
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A;Accession: A22908
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A; Residues: 1-235 <PEN>
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A;Accession: A25164
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      of.
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      murine
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      tumor
      ра
Вb
                                                                                                    ΩV
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RETPEGAEAKPWY KDTPEGAELKPWY

16

Conservative

Mismatches

Indels

0

Gaps

0,

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A;Introns: 62/3; 81/1; 97/1
C:Superfamily: tumor necrosis factor
C:Keywords: Cytokine; cytotoxin; glycoprotein; lipoprotein; lymphok
F;80-235/Product: tumor necrosis factor *status predicted <MAT>
F;19,20/Binding site: myristate (Lys) (covalent) *status predicted
F;84/Binding site: carbohydrate (Ser) (covalent) *status predicted
F;86/Binding site: carbohydrate (Asn) (covalent) *status predicted
F;148-179/Disulfide bonds: *status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: GB:L00981; NID:g205253; PIDN:AAA16275.1; R;Estler, H.C.; Grewe, M.; Gaussling, R.; Pavlovic, M.; Decke Biol. Chem. Hoppe-Seyler 373, 271-281, 1992 A;Title: Rat tumor necrosis factor-alpha. Transcription in rah,Reference number: S21674; MUID:92329007; PMID:1627266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Title: Cloning and sequence analysis of the rat tumor necrosis factor-encoding A;Reference number: JNO868; MUID:94040766; PMID:8224868 A;Accession: JNO868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Superfamily: tumor necrosis factor C;Keywords: cytokine; cytotoxin; glycoprotein; lipoprotein; lymphob F;80-235/Product: tumor necrosis factor #status experimental <MAT> F;20/Binding site: myristate (Lys) (covalent) #status predicted F;84/Binding site: carbohydrate (Ser) (covalent) #status predicted F;86/Binding site: carbohydrate (Asn) (covalent) #status predicted E;86/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                      A;Molecule type: mRNA
A;Residues: 1-38,'p',40-162,'T',164-201,'S',203-235 <EST>
A;Cross-references: GB:X66539; GB:S40199; NID:g395369; PIDN:CAA47146.1;
C;Comment: Tumor necrosis factor is secreted by macrophages in response
                                                                                                                                                                                                                                                                                                  C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: DNA
A; Residues: 1-235 < KWO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R; Kwon,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Title: Cloning and expression A; Reference number: JU0029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Agric. Biol. Chem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;Shirai,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Date: 07-Jun-1990 #sequence_revision 07-Jun-1990 C;Accession: JU0029; JN0868; S21674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N;Alternate names: cachectin; TNF alpha C;Species: Rattus norvegicus (Norway rat)
                                                                                                                                                                                                                                                                         A; Gene: TNF-alpha
                                                                                                                                                                                                                                                                                                                                                                                                                       A; Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gene 132,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Residues:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     tumor necrosis factor alpha precursor -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    F;148-179/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Note: the first
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Residues:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Molecule type: DNA;Residues: 1-235 <SHI>;Residues: 1-235 <SHI>;Rwon, J.; Chung, I.Y.;
ane 132, 227-236, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 RETPEGAEAKPWY 16 :: | | | | | | | | | | |
                                                                                                                                                                                                                                                                                                                   Tumor necrosis factor is secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     62/3; 81/1; 97/1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10;
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80-85,'x',87-99
  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                     S21674
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Shimizu, N.; Horiguchi, S.; Ito, Chem. 53, 1733-1736, 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
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76.9%;
  61.9%;
76.9%;
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  Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 65; DB 1;
Pred. No. 0.012;
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     No. 0
                      65;
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DB 2;
0.012;
                                                                                                                                                                                                                                                                                                                   by macrophages
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s experimental <MAT>
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                    Length 235
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                                                                                                                                                                                         lymphokine;
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RESULT 12
JQ1344
                                                                                                                                                                                                                                                C;Superfamily: tumor necrosis factor
C;Reywords: cytokine; cytotoxin; glycoprotein; lymphokine;
F;42/Binding site: carbohydrate (Ser) (covalent) #status pr
F;106-138/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                          R;Rimstad, E.
submitted to the EMBL Data
submitted number: S41867
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R;Goldstein, I.M.; Henner, D.; Talho submitted to the EMBL Data Library,
                                                                                                                                                                                                                                                                                                                             A;Residues: 36-38,'S',40-78,'A',80-88,'N',90-114,'Q',116-123,'D',125-144,'G',145-173,'L'
A;Cross_references: EMBL:X77317; NID:g452607; PIDN:CAA54523.1; PID:g452608
                                                                                                                                                                                                                                                                                                                                                                                                                A; Reference number: A; Accession: S41867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Species: Capra aegagrus hircus (domestic goat)
C;Date: 28-Feb-1990 #sequence_revision 28-Feb-1990 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             F;19,20/Binding site: myriscace (Ejr) (covalent) #status F;84/Binding site: carbohydrate (Ser) (covalent)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Status: preliminary; translated A;Molecule type: DNA A;Molecule: 1-235 <RES> A;Cross-references: GB:M59233; NID A;Cross-references: GB:M59233; NID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Species: Peromyscus leucopus (white-footed mouse)
C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 04-Feb-2000
C;Accession: I54490
                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                              A; Status: preliminary
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: mRNA
A; Residues: 1-193 <GOL>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Reference number: S06192
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Introns:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Title: Sequence of the tumor necrosis factor/cachectin A; Reference number: I54490; MUID:92218012; PMID:1348497 A; Accession: I54490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R;Crew, M.D.; Filipowsky, M.E.
Immunogenetics 35, 351-353, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Gene: PITNE
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Best Local S
Matches 10
    necrosis
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                                                                                                                                                                               12; Conser
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factor alpha
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92.3%;
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precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TNF alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NID:g202506; PIDN:AAA40596.1; PID:g202507
                                                                                                                                                                             0;
                                                                                                                                                                                                Pred.
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                                                                                                                                                                                                                  Score
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    January 1994
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March 1989
                                                                                                                                                                           Mismatches
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(covalent) #status predicted
                                                                                                                                                                                              No.
                                                                                                                                                                                                                  59.5;
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                                                                                                                                                                                              DB:
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                                                                                                                                                                                                              Length 193;
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                                                                                                                                                                                                                                                                        e; macrophage;
predicted
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N;Alternate names: cachectin; TNF alpha
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999
C;Accession: A25454; A2545; JS0727
                                                                                                                                                                                                                                                                                                                                RESULT
A25451
                                                                      R;Ito, H.; Yamamoto, S.; Kuroda, DNA 5, 149-156, 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Authors: Utterback, T.; Cotton, M.D.; Spriggs, T.; Artiach, P.; Kaine, B.P.; Smith, H.O.; Woese, C.R.; Venter, J.C.
A;Title: The complete genome sequence of the hyperthermophilic, sulfate-reducir A;Reference number: A69250; MUID:98049343; PMID:9389475
A;Accession: D69373
A; Title: Molecular cloning and expression i A; Reference number: A25454; MUID: 86219711;
                                                                                                                                                                                                                                                                                    tumor necrosis factor alpha precursor - rabbit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: GB:AE001036; GB:AE000782; C;Superfamily: immunogenic protein BCSP31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Residues: 1-347 <KLE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              immunogenic protein (bcsp31-3) homolog - Archaeoglobus fulgidus
C;Species: Archaeoglobus fulgidus
C;Species: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 17-Mar-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Superfamily: tumor necrosis factor
C;Keywords: cytokine; cytotoxin; glycoprotein; lipoprotein; lymphokine;
F;78-234/Product: tumor necrosis factor alpha #status predicted <TUM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;ACCESSION: VALUE C;ACCESSION: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Status: preliminary; nucleic acid sequence not shown; translation not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Glodek, A.; Zhou, L.; Overbeek, Nature 390, 364-370, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;Klenk, H.P.; Clayton, R.A.; Tomb, J.F.; White, O.; Nelson, K.E.; Ketchum, Fleischmann, R.D.; Quackenbush, J.; Lee, N.H.; Sutton, G.G.; Gill, S.; K.
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C;Species: Equus caballus (domestic horse)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C; Accession:
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A; Residues: 1-234 <SUX>
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181 ESPEQAEAKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20 CAAEEKPEGATTPKVEVKPW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
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83.3%;
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Pred. No. 4
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                                                                                                   Sakamoto, H.; Kajihara, J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gocayne, J.D.; Weidman, J.F.; McDonald, L.
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in Escherichia coli
; PMID:3519137
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endotoxemia
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                         the cDNA coding
                                                                                               Kiyota, T.;
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R:Kaneko, T.; Nakamura, Y.; Wolk, C.P.; Kuritz, T.; Sasamoto, S.; Watanabe, A.; Iriguch: Nakazaki, N.; Shimpo, S.; Sugimoto, M.; Takazawa, M.; Yamada, M.; Yasuda, M.; Tabata, S. DNA Res. 8, 205-213, 2001
A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium Ana A; Reference number: AB1807; MUID:21595285; PMID:11759840
A;Accession: AH2218
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AH2218
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                                                                                                                        B
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                                                                                                                                                                                                                                                                                                                                                      A;Gene: alr3303
                                                                                                                                                                                                                                                                                                                                                                             C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                        A;Molecule type: DNA
A;Residues: 1-328 <KUS:
A;Cross-references: GB:BA000019; PIDN:BAB75002.1; PID:g17132398; GSPDB:GN00179
A;Experimental source: strain PCC 7120
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C;Keywords: cytokine; cytotoxin; glycoprotein; lipoprotein; lymphokine; macrophage; meml
F;1-81/Domain: propeptide #status predicted <PRO>
F;82-234/Product: tumor necrosis factor #status predicted <MAT>
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A;Title: Structural analysis of the rabbit TNF locus, containing the genes encoding TNF A;Reference number: JH0309; MUID:91065534; PMID:2249779
A;Accession: JS0727
A;Accession: JS0727
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A; Residues: 1-234 <ITO>
Search completed: April 4, 2003, 08:42:58
Job time: 13.3387 secs
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A;Note: Nostoc sp. strain PCC 7120 is a synonym of Anabaena sp. strain PCC 7120
C;Date: 14-Dec-2001 #sequence_revision 14-Dec-2001 #text_change 30-Jun-2002
C;Accession: AH2218
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A; Residues: 1-234 <IT2>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 hypothetical protein alr3303 [imported] • Nostoc sp. (strain PCC 7120)
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h; Residues: 1-62, 'Q', 63-234 <SHA>
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                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                           Query Match
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                                                                                                                     261 CGIDLRQTPDGA----WYC 275
                                                                                                                                                                                                                                       Local Similarity les 10; Conserv
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                                                                                                                                                                            1 CG--QRETPEGAEAKPWYC 17
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9; Conserv
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Post-processing: Minimum Match 0%
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    protein search, using sw model
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    DB
             TNFA_RAT
TNFA_HORSE
TNFA_HORSE
TNFA_MARMO
TNFA_RABIT
TRIO_HUMAN
YFCC_CHRVI
ABC6_HUMAN
APAH_YERPE
MUTB_STRCM
LDLR_RAT
LDLR_RAT
ARCA_MYCTU
Y441_HUMAN
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NGG2_BRARE
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Q8wnr1 delphinapte
P19101 felis silve
P01375 homo sapien
Q8zik7
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Q07954
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P01375
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NYLB_FLASK

simian immu homo sapien brachydanio flavobacter

RP SE4 RP R		R R R R R R R R R R R R R R R R R R R	TRE DISTRIBUTE OF THE PROPERTY	
SEQUENCE FROM N. A. STRAIN=Large white; TISSUE=Fibrobl STRAIN=Large white; TISSUE=Fibrobl STRAIN=Large white; TISSUE=Fibrobl STRAIN=Large white; TISSUE=Fibrobl MEDLINE=21108615; PubMed=11169259; Chardon P., Rogel-Gaillard C., Cat Renard C.; "Sequence of the swine major histo containing all non-classical class Tissue Antigens 57:55-65(2001). Tissue Antigens 57:55-65(2001). Tissue Antigens 57:55-65(2001). SEQUENCE OF 44-232 FROM N. A. MEDLINE=90034181; PubMed=2478420; Pauli U., Beutler B., Peterhans E. "Porcine tumor necrosis factor alp chain reaction and determination o Gene 81:185-191(1989)!- FUNCTION: Cytokine that binds TNFRSF1B/TWEBR. It is mainly s induce cell death of certain t pyrogen causing fever by direct interleukin 1 secretion and is	RP SEQUENCE FROM N.A. RC TISSUE-Liver; RX MEDLINE-91340150; PubMed=187 RX KUhnert P., Wuethrich C., Pe RT "The porcine tumor necrosis RT comparative analysis."; RI Gene 102:171-178(1991). RI [3] RP SEQUENCE FROM N.A. RC TISSUE-Macrophage; RA Choi C.S., Molitor T.W., Lin RT "Complete nucleotide sequenc RT necrosis factor-alpha."; RL Anim. Biotechnol. 2:97-105(1	TIF OR THESE SUS SCTOFA (EUKATYOTA; EU MAMIMALIA; EU NCBI_TAXID=9 (1) SEQUENCE FRC SEQUENCE FRC MEDLINE=9101 Drews R.T., "Gene sequen Nucleic Acid	SULT 1 TNFA_PIG P23563; 01-NOV- 01-NOV- Tumor n	88888888888888888888888888888888888888
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e; TISSUE=1 PubMed=11: -Gaillard (-Gailla	PubMed= necros is:"; 991). T.W., de sequ pha.";	NFA. Chord Cetar PubMed= B.W. porcine 18:556	TANDARD; . 20, Cre . 20, Las . 41, Las actor pre	480 710 712 714 891 950 1696 2225 2225 2272 2312 259
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Best Local :
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PIR; S17290; S17290.

PIR; S19865; S18965

HSSP; P01375; 4TSV.

INTERPIC; IPR000363; TNF_abc.

InterPic; IPR000478; TNF_family.

Pfam; PF00229; TNF; 1.
        Tumor necrosis factor precursor (TNF-alpha) ligand superfamily member 2) (Cachectin). TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                MOD_RES
DISULFID
SEQUENCE
                                                                                   TNFA_DELLE
Q8WNR1;
  Delphinapterus
                                                            15-JUN-2002 (Rel.
15-JUN-2002 (Rel.
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EMBL;
                                                15-JUN-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBCELLULAR LOCATION: Type II membrane protein extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane
                                                                                                                                                      QRETPEGAEAKPWY 190
                                                                                                                                                                   QRETPEGAEAKPWY 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               proteolytic processing (By similarity).

PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CANCER AND INFECTION, AND
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             X54001; CAA37949.1; -. X54859; CAA38639.1; -. X57321; CAA40591.1; -. AJ251914; CAB63852.1; -.
                                                                                                                                                                                                             Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                    Cytotoxin;
                                               (Rel. 41,
(Rel. 41,
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                                                                                                                                                                                                    Conservative
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(Beluga whale)
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TUMOR NECROSIS FACTOR,
CYTOPLASMIC (POTENTIAL)
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                              (Tumor necrosis
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SITE
                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cytokine; Cytotoxin; Transmembrane; Glycoprotein; Phosphorylation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                               DISULFID
                                                                                                                                                                                                                                                                        MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProDom; PD002012; TNF_abc; SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRINTS; PR01234; TNECROSISFCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; AF320323; AAL56946.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation (By similarity).

SUBCELIQUAR LOCATION: Type II membrane protein. Also exists as extracellular soluble form (By similarity).
  178 QRETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF00229; TNF; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Denis F., Archambault D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PubMed=11768130
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                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (Delphinapterus leucas) interleukin-lbeta and tumor necrosis factor-alpha.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Molecular cloning and characterization of beluga whale
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9749
[1]
                                             3 QRETPEGAEAKPWY
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PTM: The membrane form, but not the soluble form, is proved by the soluble form, is phosphorylated on serine residues. Dephosphorylation of the phosphorylated by binding to soluble TNFRSFIA/TNFRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FUNCTION: Cytokine that binds to INFRSF1A/INFR1 and INFRSF1B/INFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way in the strict of the strict
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                                                                                             l Similarity 100 14; Conservative
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233 AA;
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100.0%;
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                                                                                                                                       Score 81;
                                                                                                                                                                                                                                                                                  EXTRACELLULAR (POTENTIAL). CLEAVAGE (BY ADAM17) (BY S
                                                                                                                                                                                                                                                                                                                                                 CYTOPLASMIC (POTENTIAL).
SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                   N-LINKED (GLCNAC
                                                                                                                                                                                                                                  BY SIMILARITY.
                                                                                                                                                                                                                                                      PHOSPHORYLATION (BY CK1) (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                        TUMOR NECROSIS FACTOR,
                                                                                                                                                                                                                                                                                                                                       (POTENTIAL)
                                                                                                                   Pred.
                                                                                                                                                                                       2DF37DCB2BC9E961 CRC64;
                                                                                        Mismatches
                                                                                                                   NO.
                                                                                                                                       DB 1;
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                                                                                                                                  Length 233;
                                                                                        Indels
                                                                                                                                                                                                           .) (POTENTIAL)
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RESULT 3
TNFA_FELCA
ID TNFA_FELCA

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Submitted (XXX-1993) to the EMBL/GenBank/DDBJ databases.
-I-FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
TNFRSF1B/TNFBR. It is mainly secreted by macrophages
induce cell death of certain tumor cell lines. It is
                                                                                                                    PROSITE; PS00251; TNF_1; 1.

PROSITE; PS50049; TNF_2; 1.

Cytokine; Cytotoxin; Transmembrane; Phosphorylation;
                                                                                                                                                                                                                                                            EMBL; X54000; CAA37948.1; -. EMBL; M92061; AAA30818.1; -. PIR; S11688; S11688. HSSP; P01375; 4TSV.
                                                                                                                                                                                                                                                                                                                                modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Enthe European Bioinformatics Institute. There are no restructed by non-profit institutions as long as its content
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15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor ligand superfamily member 2) (Cachectin).
TNF OR TNFSF2 OR TNFA.
Felis silvestris catus (Cat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-1990 (Rel.
01-NOV-1990 (Rel.
15-JUN-2002 (Rel.
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01-NOV-1990
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                                                                                                              CHAIN
                                                                                                                                                                       SMART; SM00207;
                                                                                                                                                                                    PRINTS; PR01234; TNECROSISFCT. ProDom; PD002012; TNF_abc; 1.
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InterPro; IPR000478; TNF_family.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=91016860;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE=Bone marrow;
                                                               CRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      proliferation and induce cell differentiation.
SUBJUNIT: Homotrimer (By similarity).
SUBCELLULAR LOCATION: Type II membrane protein. Also
extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane form
                                                                                                                                                                                                                                                                                                                                                                                                                                                        AND MALNUTRITION.
SIMILARITY: BELONGS TO THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISEASE: CACHEXIA ACCU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          proteolytic processing (By similarity). PTM: The membrane form, but not the soluble form,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSFLA/TNFR1 ()
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                                                                                                                                                                       TNF_abc;
TNF; 1.
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                                                                         TUMOR NECROSIS FACTOR, MEMBRANE FORM.
TUMOR NECROSIS FACTOR, SOLUBLE FORM.
CYTOPLASMIC (DOMESTIC:
(POTENTIAL).
EXTRACELLULAR (POTENTIAL)
CLEAVAGE (BY ADAM17) (BY
PHOSPHORYLATION (BY CK1)
                                                     CYTOPLASMIC (POTENTIAL).
SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Craniata; Vertebrata;
; Fissipedia; Felidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S A VARIETY OF CHARACTERIZED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISEASES,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL
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               SIMILARITY)
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factor."
Science [6]
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CONFLICT
                                                                                                                                                                                      Nedwin G.E., Naylor S.L., Sakaguchi A.Y., Smith D.H., Jarrett-Nedwin J., Pennica D., Goeddel D.V., Gray P.W., "Human lymphotoxin and tumor necrosis factor genes: structure, homology and chromosomal localization.";
Nucleic Acids Res. 13:6361-6373(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Tandem arrangement of genes coding for tumor necrosis factor alpha) and lymphotoxin (TNF-beta) in the human genome."; Cold Spring Harb. Symp. Quant. Biol. 51:611-624(1986).
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                                                                                                                                                                                                                                                                                                                                        "Cloning and expression in Escherichia coli tumour necrosis factor.";
Nature 313:803-806(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. MEDLINE-85086244; PubMed=6392892;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nedospasov S.A., Shakhov A.N., Turetskaya R.L., Mett V.A., Azizov M.M., Georgiev G.P., Korobko V.G., Dobrynin V.N., Filippov S.A., Bystrov N.S., Boldyreva E.F., Chuvpilo S.A. Chumakov A.M., Shingarova L.N., Oychinnikov Y.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE=87217060; PubMed=3555974;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
                                                                                                    Wang A.M., Creasey A.A., Ladner
                                                                                                                             SEQUENCE FROM N.A. MEDLINE=85142190; PubMed=3856324;
                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
MEDLINE=86016093; PubMed=2995927;
                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. MEDLINE-85137898; PubMed-3883195;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               homology to lymphotoxin.";
Nature 312:724-729(1984).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ligand superfamily member 2) (Cachectin). TNF OR TNFSF2 OR TNFA.
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                                                          "Molecular cloning
                                                                                   van Arsdell J.N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Human tumour necrosis factor:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Palladino M.A., Kohr W.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pennica D.,
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                  228:149-154(1985)
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                                                            complementary
                                                                             R., Mark D.F.
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Ostade X.V., Tavernier J., Prange T., Fier "Localization of the active site of human (hTNF) by mutational analysis.";
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Kawashima E., Shaw A., Johnson M.J., Semon D.,
Ruysschaert M.R., van Vliet A., Fiers W.;
                                       specific lysine
                                                              MEDLINE=93018820; PubMed=1402651; Stevenson F.T., Bursten S.L., Loc
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transfected HeLa cells.
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MEDLINE=86030296; PubMed=3932069;
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urka J., Rodriguez-Tome
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                                       residues
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PubMed=9034191;
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genomic DNA of 6p21
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etz C., Madan A., Dors
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Seaton T., Suyer M., Pahel G., Rocque W., Overton L.K., Schoenen T., Su J.-L., Warner J., Willard D., Becherer J.D.; "Cloning of a disintegrin metalloproteinase that processes precured tumour-necrosis factor-alpha.";
Nature 385:733-736/1907\
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                                                                                                                                                                                                                                                                                                                                                                                                                                         "High resolution crystal structure of a hu"inha mutant with low systemic toxicity.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Crystal structure of TNF-alpha mutant receptor R1 compared with R2.";
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MEDLINE=98147459; PubMed=9488135;
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J. Biol. Chem. 264:17595-17605(1989)
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MEDLINE=90008932; PubMed=2551905;
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m.J. Sprang S.R.;
ie structure of tumor necrosis factor-alpha
                                                                                                                                                                                                                                                             proliferation and induce cell differentiation.
SUBUNIT: Homotrimer.
SUBCELLULAR LOCATION: TYPE II MEMBRANE PROTEIN
EXTRACELLULAR SOLUBLE FORM.
PTM: THE SOLUBLE FORM DERIVES FROM THE MEMBRAN
                                                                                                                                                                         phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSFIA/TNFRI. DISEASE: CACHEXIA ACCOMPANIES A VARIETY OF DISEASES, INCLUDING CANCER AND INFECTION, AND IS CHARACTERIZED BY GENERAL ILL HEAL:
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                                                                                               SWISS-PROT entry is copyright. It is produced through
een the Swiss Institute of Bioinformatics and the EN
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Eng. 10:1101-1107(1997).
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                                                                                    Bioinformatics Institute.
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(See http://www.isb-sib.ch/announce/

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SMART; SM00207; INF, ...

SMART; SM00207; INF_1; 1.

PROSITE; PS00251; TNF_1; 1.

PROSITE; PS50049; TNF_2; 1.

Cytokine; Cytotoxin; Transmembrane; Phosphorylation; Signal-anchor.

Cytokine; 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (JAN-1997) to the EMBL/GenBank/DDBJ databases.

-!- FUNCTION: Cytokine that binds to TNFRSFIA/TNFR1 and TNFRSFIB/TNFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell
                                                                                                                                                                                                                                                                                                       PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
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TNF OR TNFSF2 OR TNFA.
Macaca fascicularis (C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-JUL-1998 (Rel. 36, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
ligand superfamily member 2) (Cachectin).
                                                                                                                                                                                                                                                                                                                                                                                                                     Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                           InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      use by non-profit institutions as long modified and this statement is not removed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      +
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cercopithecinae;
NCBI_TaxID=9541;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TNFA_MACFA P79337;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tatsumi M.
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15-JUL-1998 (Rel.
15-JUN-2002 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      178 QRETPEGAEAKPWY 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            proteolytic processing (By similarity).

PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       proliferation and induce cell differentiation.
SUBJUNT: Homotrimer (By similarity).
SUBJULAR LOCATION: Type II membrane protein. Also
extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane form
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            similarity)
DISEASE: CA
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36, Last seq
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100.0%;
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Pred. No
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CHARACTERIZED
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3. 1.5e-05;
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BY GENERAL
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RESULT 6
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MOD_RES
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SEQUENCE
                                                                                                                                                 between the Swiss Institute of Bioinformatics the European Bioinformatics Institute. There suse by non-profit institutions as long as a modified and this statement is not removed. Use entities requires a license agreement (See http. of the statement of the stat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
                                                                                 EMBL; U19850;
                                                                                                                                 or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
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01-FEB-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            J. Immunol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Villinger F.J., Brar S.S., Mayne A.E., Chikkala N., An "Comparative sequence analysis of cytokine genes from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          THE OR THESE OR THEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nonhuman primates.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9544;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Macaca mulatta (Rhesus macaque).
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                                                                                                                                                                                                                                                                                                                                         Similarity).
DISEASE: CACHEXIA ACCOMPANIES A VARIETY OF CAMPER AND INFECTION, AND IS CHARACTERIZED
                                                                                                                                                                                                                                                                                                                                                                                                             proteolytic processing (By similarity).

PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form occurs by binding to soluble TNFRSF1A/TNFR1
                                                                                                                                                                                                                                                                                                         SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages induce cell death of certain tumor cell lines. It is
                                                                                                                                                                                                                                                                                                                                     AND MALNUTRITION.
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14; Conserv
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233 AA;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EXTRACELLULAR (POTENTIAL) CLEAVAGE (BY ADAM17) (BY
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                                                                                                                                                   (See http://www.isb-sib.ch/announce,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chikkala N., Ansari A.A.;
                                                                                                                                                                                     There are no restrictions ng as its content is in
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InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family
Pfam; PF00229; TNF; 1.

ISSP; P01375;

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Best Local
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DISULFID
SEQUENCE
                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                              -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE-98147379; PubMed-9488055;
MEDLINE-98147379; PubMed-98147379;
MEDLINE-98147379; PubMed-98147379;
MEDLINE-9814779; PubMed-9814779;
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Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ligand superfamily member 2) (Cachectin). TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-DEC-1998 (Rel. 37, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
15-UN-2002 (Rel. 41, Last annotation update
Tumor necrosis factor precursor (TNF-alpha)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TNFA_PAPHU 077510;
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PROSITE; PS50049; TNF_2; 1.
Cytokine; Cytotoxin; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=36229;
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Papio hamadryas ursinus (Chacma baboon).
Papio hamadryas ursinus (Chacma baboon).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Complementary DNA (cDNA) sequence of baboon tumor necrosis factor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       178 QRETPEGAEAKPWY 191
                                                                                                                                                                                                                                                                                                      pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation.

SUBUNIT: Homotrimer (By similarity).

SUBCELLULAR LOCATION: Type II membrane protein. Also exists extracellular soluble form (By similarity).

PTM: The soluble form derives from the membrane form by proteolytic processing (Bv similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3 QRETPEGAEAKPWY
                                                                                                                                                               similarity).
DISEASE: CACHEXIA ACCCCANCER AND INFECTION,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . Immunol. 34:1041-1042(1997).
FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages and induce cell death of certain tumor cell lines. It is pote
                                                                                                                      SIMILARITY: BELONGS
                                                                                                                                                                                                                                  proteolytic processing (By similarity).

PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1 (1)
                                                                                                                                              AND MALNUTRITION
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100.0%;
                                                                                                                      TO THE TUMOR NECROSIS FACTOR FAMILY.
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Pred. No.
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EXTRACELLULAR (POTENTIAL).

CLEAVAGE (BY ADAM17) (BY SIMILARITY)

PHOSPHORYLATION (BY CK1) (BY SIMILAR
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TUMOR NECROSIS FACTOR, N
TUMOR NECROSIS FACTOR,
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SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
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9F6F85050595FD59 CRC64;
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its content
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BY GENERAL
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RESULT 8
TNFA_PAPSP
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                                                                                                                       Submitted (SEP 1991) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: Cytokine that binds to TNFRSFIA/TWFR1 and TNFRSFIB/TNFRE. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation.
-!- SUBGINIT: Homotrimer (By similarity).
-!- SUBCELLULAR LOCATION: Type II membrane protein. Also exists as extracellular soluble form (By similarity).
-!- PTM: The soluble form derives from the membrane form by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-FEB-1994 (Rel. 28, Created)
01-FEB-1994 (Rel. 28, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor ligand superfamily member 2) (Cachectin).
TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOD_RES
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                              Sanjanwala M.,
                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cercopithecinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Papio sp. (Baboon).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
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PROSITE: PS50049; TNF_2; 1.
Cvtokine; Cytotoxin; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=61183;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR000478;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro; IPR003636; TNF_abc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       178 QRETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3 QRETPEGAEAKPWY 16
SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY
                                       proteolytic processing (By similarity).

PTM: The membrane form, but not the soluble form, phosphorylated on serine residues. Dephosphorylate membrane form ocurrs by binding to soluble TNFRSF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P01375;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and this statement is not re-
requires a license agreement
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233 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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100.0%;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EXTRACELLULAR (POTENTIAL).
CLEAVAGE (BY ADAM17) (BY SIMILARITY).
PHOSPHORYLATION (BY CK1) (BY SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            brane; Phosphorylation; Signal-anchor TUMOR NECROSIS FACTOR, MEMBRANE FORM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Craniata; Vertebrata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
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                                       es. Dephosphorylation of the to soluble TNFRSF1A/TNFR1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     oved. Usage by and for commercial (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.5e-05
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                                                                     of the
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This SWISS-PROT entry is copyright. It is produced through a collaboration

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Best Local S
Matches 14
                                                                                                                                                                                                                                                                                                                                                    Q9BEA1;
15-JUN-2002 (Rel. 4
15-JUN-2002 (Rel. 4
15-JUN-2002 (Rel. 4
                                                                                                                                                                                                                                                                                                                                                                                                                                 TURTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SITE
MOD_RES
LIPID
    Shoji Y., Inoue Y., Sugisawa H., Itou T., Endo T., Sakai T.;
"Molecular cloning and functional characterization of bottlenose
dolphin (Tursiops truncatus) tumor necrosis factor alpha.";
Vet. Immunol. Immunopathol. 82:183-192(2001)
                                                                                                                                                                                         SEQUENCE FROM N.A. PubMed=11587733;
                                                                                                                                                                                                                                                             Tursiops truncatus (Atlantic bottle-nosed dolphin).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Cetacea; Odontoceti; Delphinidae;
                                                                                                                                                                                                                                                                                                          15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor ligand superfamily member 2) (Cachectin).
TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                    Tursiops
                                                                                                                                                                                                                                      NCBI_TaxID=9739
                                                                                                                                                                                                                                                                                                                                                                                                                 TNFA_TURTR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SMART; SM00207;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ProDom; PD002012; TNF_abc; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF00229; TNF; 1.
PRINTS; PR01234; TNECROSISFCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; X62141; CAA44068.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Myristate.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cytokine; Cytotoxin; Transmembrane; Phosphorylation; Signal-anchor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        178
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    w
                                       Immunol. Immunopathol. 82:183-192(2001).

FUNCTION: Cytokine that binds to TNFRSFIA/TNFR1 and TNFRSFIB/TNFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell
   proliferation and induce cell differentiation
SUBUNIT: Homotrimer (By similarity).
SUBCELLULAR LOCATION: Type II membrane proteir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QRETPEGAEAKPWY 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S22052; S22052.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QRETPEGAEAKPWY 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IPR003636; TNF_abc.
IPR000478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      57
76
2
19
19
20
145
233
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Homotrimer (By similarity).

AR LOCATION: Type II membre
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77
1
36
                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
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77
20
19
177
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CLEAVAGE (BY ADAMI7) (BY SIP
PHOSPHORYLATION (BY CK1) (BY
MYRISTATE (BY SIMILARITY).

MYRISTATE (BY SIMILARITY).

BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
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SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. 1. ; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       455360B48DC74173 CRC64;
 membrane
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                                                                                                                                                                                                                                                                                                                                                                                                               233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.5e-05;
                                                                                                                                                                                                                                                                                                                                                                                                               A
protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 233;
                            (By similarity)
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Also exists as
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Best Local S
Matches 14
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ROSITE;
Cytokine; Cy
Signal-anchor.
CHAIN 78 27
TN 136
SEQUENCE FROM N.A.
Zucker K., Lu P., Fuller
"Cloning and expression
factor-alpha in E. coli.
                                                                                                                                                                                                                                                                                                                                                                                                              SITE
MOD_RES
DISULFID
CARBOHYD
                                                                                                                                             ligand superfamily member 2) (Cachectin).
TNF OR TNFSF2 OR TNFA.
Canis familiaris (Dog).
                                                                                                                                                                            P51742; Q28339;
01-OCT-1996 (Rel. 34, Last sequence update)
01-OCT-1996 (Rel. 34, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (
                                                               Submitted
                                                                         SEQUENCE FROM N.A. Fiers W., Beernaer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       use by non-profit institutions as long modified and this statement is not removed. entities requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                        Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1.
                                                                                                          Mammalia; Eutheria; Carnivora;
NCBI_TaxID=9615;
                                                                                                                                                                                                                                            TNFA_CANFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; AB049358; BA
HSSP; P01375; 4TSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      between the Swiss Institute of Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cytokine; Cytotoxin; Transmembrane; Glycoprotein; Phosphorylation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pfam; PF00229; TNF; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR003636;
InterPro; IPR000478;
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                                                                                                                                                                                                                                                                                                  178 QRETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                           3 QRETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       proteolytic processing (By similarity).

PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           extracellular soluble form (By similarity) PTM: The soluble form derives from the mem
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              membrane form ocurrs by binding
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                                                            (JAN-1996)
                                                                                                                                                                                                                                                                                                                                                                                                   233 AA;
                                                                                                                                                                                                                                                                                                                                                    Conservative
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77
                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BAB39855.1; -.
                        Fuller
                                                                                                                                                                                                                                                                                                                                                                                                                        233
78
2
177
                                                           ) to
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233
35
56
                                                                                                                    Chordata; Craniata; Vertebrata; Carnivora; Fissipedia; Canidae;
                                                                                                                                                                                                                                                                                                     191
                                                                                                                                                                                                                                                                                                                           16
                                                                                                                                                                                                                                                                                                                                                                                                  95
25404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TNF_family.
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 er L., As
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l.";
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                                                           EMBL/GenBank/DDBJ
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                      Asthana
                                                                                                                                                                                                                                                                                                                                                               Score 81;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                              N-LINKED
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BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CYTOPLASMIC (POTENTIAL).
SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (POTENTIAL)
                                                                                                                                                                                                                                           PRT;
            CDNA
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71CC39C699CC49D9 CRC64;
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      . D.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (See http://www.isb-sib.ch/announce/
            canine
                                                                                                                                                                                                                                                                                                                                                                1.5e-05;
                                                                                                                                                                                                                                                                                                                                                                          DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       There
                                                                                                                                                                                                                                           A
                      Esquenazi V., Miller J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mere are no restrictions as its content is in
                                                                                                                                                                              (Tumor necrosis factor
                                                           databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Usage
                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                         Length 233
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                                                                                                                     Euteleostomi Canis.
                                                                                                                                                                                                                                                                                                                                                                                                             (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             form
                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           λq
                                                                                                                                                                                                                                                                                                                                                 0,
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                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 commercia]
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Q
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                                                          Query Match
Best Local S
Matches 13
                                                                                                                CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                       CONFLICT
                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                SITE
MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Lymphokine
[3]
                                                                                                                                                                                                                                                                                                                                  PROSITE; PS00251; TNE_1; 1.

PROSITE; PS50049; TNE_2; 1.

Cvtokine; Cytotoxin; Transmembrane; Phosphorylation;
                                                                                                                                                                                                                                                                                                                                                                                          PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; X94932; CAA64403.1; -. EMBL; S74068; AAB32391.1; -. EMBL; Z70046; CAA93908.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gilmore W.H., Carter S.D., Bennett M., Barnes A., Kelly D.F., Submitted (MAR-1996) to the EMBL/GenBank/DDBJ databases -I-FUNCTION: Cytokine that binds to TMFRSFIA/TMFRI and TMFRSFIB/TMFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        between the Swiss Institute of Bioinf
the European Bioinformatics Institute
                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                        TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN=Beagle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 74-205 FROM N.A.
                                                                                                                                                           CONFLICT
                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                      CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HSSP; P01375; 4TSV
178 QRETPEGTEAKPWY 191
                             w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBCELLULAR LOCATION: TYPE II MEMBRANE PROTEIN. ALSO EXISTS AS EXTRACELLULAR SOLUBLE FORM (BY SIMILARITY).

PTM: THE SOLUBLE FORM DERIVES FROM THE MEMBRANE FORM BY PROTEDLYTIC PROCESSING (BY SIMILARITY).

PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form occurs by binding to soluble TNFRSF1A/TNFR1 (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation.

SUBGNIT: Homotrimer (By similarity).

SUBCEILILIAR ICCARTICAL TRYPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISEASE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CANCER AND INFECTION, AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SWISS-PROT entry is copyright. It is produced through een the Swiss Institute of Bioinformatics and the Ex
                             QRETPEGAEAKPWY
                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MALNUTRITION
                                                                                                                57
76
2
145
59
66
74
111
116
134
233
                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACHEXIA ACCOMPANIES A VARIETY OF DISEASES, INCLUDING ID INFECTION, AND IS CHARACTERIZED BY GENERAL ILL HEALTH
                                                                                                                 ĀΑ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE=Blood;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13:191-196(1994).
                                                                                                                                          233
77
177
60
66
66
74
111
                             16
                                                                                                                 25447
                                                                                                                 WW;
                                                                                                                          EXTRACELLULAR (POTENTIAL).

CLEAVAGE (BY ADAM17) (BY SIMILARITY).

PHOSPHORYLATION (BY CK1) (BY SIMILARITY).

BY SIMILARITY.

QR -> PE (IN REF. 2).

G -> C (IN REF. 2).

A -> V (IN REF. 2).

A -> D (IN REF. 2).

IY -> DS (IN REF. 2).

IY -> DS (IN REF. 2).

IY -> DS (IN REF. 2).
                                                        0;
                                                                      Score 77;
Pred. No.
                                                                                                                                                                                                                                                                                                   TUMOR NECROSIS FACTOR,
TUMOR NECROSIS FACTOR,
CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                    SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                         (POTENTIAL)
                                                                                                                7B2588FBC8B25340
                                                        Mismatches
                                                                   77; DB 1;
No. 6.2e-05;
                                                                                                              2).
0 CRC64;
                                                                                  Length 233;
                                                       Indels
                                                                                                                                                                                                                                                                                                                # Signal-anchor
MEMBRANE FORM.
SOLUBLE FORM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ALSO EXISTS AS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a collaboration
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TNFA_CAPHI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (JAN-1994) to the EMBL/GenBank/DDBJ databases.
-:- FUNCTION: Cytokine that binds to TNFRSFIA/TWFR1 and
TNFRSFIB/TNFBR. It is mainly secreted by macrophages
induce cell death of certain tumor cell lines. It is
                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TNFA_CAPHI STANDARD; PRT; 234 AA.
p13296; Q28320; Q9MY22;
01-JAN-1990 (Rel. 13, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (JUN-2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   [2]
SEQUENCE OF 41-234 FROM N.A.
Henner D., Talhouk A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-Blood;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 75-234 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=Ovarian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE OF 44-234 FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (MAR-1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       E.coli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Takakura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE-Splenocyte;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bovidae; Caprinae; Capra.
NCBI_TaxID=9925;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bovidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ligand superfamily member 2) (Cachectin). TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Capra hircus (Goat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Goat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Molecular cloning of caprine TNF-alpha cDNA and its expression coli and insect cells.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                            proliferation and induce cell differentiation.
SUBBURT: Homotrimer (By similarity)
SUBCELLULAR LOCATION: Type II membrane protein. Also exists
extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane form by
                                                                                                                                                                                                                                                            similarity).
DISEASE: CACHEXIA ACCOMPANIES A VARIETY OF
                                                                                                                                                                                                                                                                                                              proteolytic processing (By similarity).

PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form occurs by binding to soluble TNFRSF1A/TNFR1
                                                                                                                                                                                                                      SIMILARITY: BELONGS TO THE TUMOR NECROSIS CAUTION: Ref.2 sequence differs from that
                                                                                                                                                                                                                                                                                                                                                                                                                                                   pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell affect.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ן B., Zhang Y.;
at ovarian TNF alpha cDNA sequence.";
אייים (JUN-2000) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                     frameshift in position 60.
                                                                                                                                                                                                                                                      AND MALNUTRITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     H., Mori Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (JUL-1996) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Henner D., ic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tollicle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tatsumi M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                      shown
                                                                                                                                                                                                                                     FACTOR
                                                                                                                                                                                                                                                                   DISEASES, 1
BY GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pecora; Bovoidea
                                                                                                                                                                                                                      due
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                                                                                                                                                                                                                                                                                    INCLUDING
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                                                                                                                                                                                                                                                                     HEALTH
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entities requires a license agreement (See http://www.or send an email to license@isb-sib.ch).

modified and this statement is not removed.

institutions as long as its content

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.isb-sib.ch/announce/

non-profit

EMBL;

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RESULT 12
TNFA_CAVPO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-Hartley; TISSUE-Lung;
Yuan H.T., Kelly F.J., Bingle C.D.;
Submitted (NOV-1995) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SMART; SM00207; INE. 1.

SMART; SM00207; INE. 1.

PROSITE; PS00049; TNF_2; 1.

PROSITE; PS50049; Transmembrane; Phosphorylation; Signal-anchor.

Cytotoxin; Tupor Newronce; Phosphorylation; Signal-anchor.

Cytotoxin; Transmembrane; Phosphorylation; Signal-anchor.

Cytotoxin; T
                                                                                                                                                                                                                                                                                          White A.M., Yoshimura T., Smi
"Airway inflammation induced
                                                                                                                                                                                                                                                                                                                                                    STRAIN=Dunkin-Hartley;
MEDLINE=97462215; PubMed=9316485;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CONFLICT
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CONFLICT
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MOD_RES
SITE
                                                                                                                                                                                                                                                                   factor-alpha,";
                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cavia porcellus (Guinea pig).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eut
Mammalia; Eutheria; Rodentia; Hystricognathi; Caviidae;
NCBI_TaxID-10141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ligand superfamily member 2) TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-OCT-1996 (Rel. 34, Last sequence update)
15-UUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-OCT-1996 (Rel.
01-OCT-1996 (Rel.
15-JUN-2002 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CONFLICT
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CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TNFA_CAVPO P51435;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CONFLICT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ProDom; PD002012; TNF_abc; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pfam; PF00229; TNF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PIR; S06192; S06192.
HSSP; P01375; 4TSV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180 RETPEGAEAKPWY 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
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                                                                                                                    J. Physiol. 273:L524-L530(1997). FUNCTION: Cytokine that binds to TNFRSFIA/TNFR1 and TNFRSFIB/TNFBR. It is mainly secreted by macrophages induce cell death of certain tumor cell lines. It is
                         pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   l Similarity
13; Conser
                                                                                                                                                                                                                                                                                             Yoshimura T., Smith lammation induced by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           234 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        57
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              34, Created)
34, Last seq
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             72.4%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25519 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BY SIMILARITY

N-LINKED (GLCNAC...

R -> S (IN REF. 4).

E -> A (IN REF. 4).

T -> N (IN REF. 4).

Y -> D (IN REF. 4).

Y -> D (IN REF. 4).

E -> EG (IN REF. 2).

O -> L (IN REF. 2).

O -> L (IN REF. 3).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 76;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (Cachectin)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EXTRACELLULAR (POTENTIAL).

PHOSPHORYLATION (BY CK1) (BY SIMILARI CLEAVAGE (BY ADAM17) (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                   A.W., Westwick J., recombinant guinea
                                                                                                                                                                                                                                                                                                                          A.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -> L (IN REF. 3 AND 4).
9768E33BBBABB041 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
differentiation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 1; Lo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 234;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AND 4).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     · · ) (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                      Watson M.L.;
pig tumor necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (BY SIMILARITY).
                                                                                                                                                              and car
                                                                                                                           potent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
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В
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                                                                                                                                                                                                                                    RESULT
                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                P51743;

D1-OCT-1996 (Rel. 34, Created)

O1-OCT-1996 (Rel. 34, Last sequence update)

15-JUN-2002 (Rel. 41, Last annotation update)

Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor ligand superfamily member 2) (Cachectin) (Fragment).

TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                     CEREL
                                                               Mammalia; Eutheria;
Cervidae; Cervinae;
                                                                                                                                                                                                                                                                                                                                                                                            MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
SITE
                                                                                        Eukaryota;
                                               NCBI_TaxID=9860;
                                                                                                                                                                                                          TNFA_CEREL
                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                           TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cytokine; Cytotoxin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SMART; SM00207;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ProDom; PD002012; TNF_abc;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRINTS; PR01234; TNECROSISFCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR000478;
Pfam; PF00229; TNF; 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; U77036; AAB19210.1; HSSP; P06804; 2TNF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entities requires a license agreement (See http://www.isb-sib.ch/announce, or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             modified and this statement is not removed. entities requires a license agreement (See
                                                                                                                                                                                                                                                                          179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR003636; TNF_abc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ----
                                                                                                                                                                                                                                                                                                3 QRETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            proteolytic processing (By similarity).

PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBUNIT: Homotrimer (By similarity).
SUBCELLULAR LOCATION: Type II membrane protein.
extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          similarity)
DISEASE: CA
                                                                                                                                                                                                                                                                          QKETPEGAERKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISEASE: CACHEXIA ACCOMPANIES A VARIETY OF CANCER AND INFECTION, AND IS CHARACTERIZED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      U39839; AAB06492.1;
                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MALNUTRITION
                                                                     Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eutheria; Cetartiodactyla; Ruminantia; Pecora; Cervoide
                                                                                                                                                                                                                                                                                                                                                                              147
234 AA;
                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                        80
36
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79
2
                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TNF;
                                                                                                                                                                                                                                                                                                                                                                                                       234
80
2
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234
35
56
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                                                                                                                                                                                                                                                                                                                                                                              25793
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Transmembrane; Phosphorylation; Signal-anchor.
134 TUMOR NECROSIS FACTOR, MEMBRANE FORM.
134 TUMOR NECROSIS FACTOR, SOLUBLE FORM.
35 CYTOPLASMIC (POTENTIAL).
56 SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                      69.5%;
85.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TNF_family.
                                                                                                                                                                                                                                                                                                                                                                              ¥.
                                                                                                                                                                                                                                                                                                                                     Score 73; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                         PHOSPHORYLATION (BY CK1)
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
CLEAVAGE (BY ADAM17) (BY
                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                          7272C940393E7E9B CRC64;
                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                        229
                                                                                                                                                                                                                                                                                                                                     0.00026;
                                                                                                                                                                                                                                                                                                                                                 DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             There are no restrictions ng as its content is in
                                                                                                                                                                                                      A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Usage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISEASES,
                                                                                                                                                                                                                                                                                                                                               Length 234;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL ILL HEALTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Also exists
                                                                                                                                                                                                                                                                                                                                                                                                    (BY
                                                                                                                                                                                                                                                                                                                                                                                                                 SIMILARITY)
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                                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY).
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Lockhart E.A.; Submitted (SEP-1994) to

the EMBL/GenBank/DDBJ databases

SEQUENCE FROM N.A.

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TOPA
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                                                                                                                                                                                                                                                 RESULT
                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local
                                                                                                         Q06599; O18779; O1-JUN-1994 (Rel. 29, Last sequence update)
O1-JUN-1994 (Rel. 29, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TMF-alpha) (Tumor necrosis ligand superfamily member 2) (Cachectin).
                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                           SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -i- PTM: THE SOLUBLE FORM DERIVES FROM THE MEMBRANE FORM
PROTECLYTIC PROCESSING (BY SIMILARITY).
-i- DISEASE: CACHENIA ACCOMPANIES A VARIETY OF DISEASES,
CANCER AND INFECTION, AND IS CHARACTERIZED BY GENERAL
                                                                                      Bos taurus (Bovine).
Eukaryota; Metazoa;
                                                                                                                                                                                                                                   BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   use by non-profit institutions as long a modified and this statement is not removed.
                                                                                                                                                                                                                      TNFA_BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SMART; SM00207;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProDom;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_fami
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; U14683; AAA50759.1; -. HSSP; P01375; 4TSV.
SEQUENCE FROM N.A. MEDLINE=94083525;
                                        NCBI_TaxID=9913;
                                                       Bovidae; Bovinae;
                                                                        Mammalia; Euthería;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cytokine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00229; TNF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NON_TER
                                                                                                                                                                                                                                                                                           175 RETPEWAEAKPWY 187
                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                       4 RETPEGAEAKPWY 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         proliferation and induce cell differentiation.
SUBUNIT: Homotrimer (By similarity).
SUBCELLULAR LOCATION: TYRE II MEMBRANE PROTEIN. ALSO EXISTS
EXTRACELLULAR SOLUBLE FORM (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MALNUTRITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cytotoxin;
                                                                                                                                                                                                                                                                                                                                                                                                           52
. 72
141
229 AA;
                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    244
                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TNF;
                                                          Bos
PubMed=8260599,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TNF_abc; 1
                                                                                                                                                                                                                                                                                                                                                                                                                            229
73
173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  229
229
30
51
                                                                      Chordata; Craniata; Vertebrata; Euteleostomi; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
                                                                                                                                                                                                                                                                                                                                                               64.8%;
92.3%;
                                                                                                                                                                                                                                                                                                                                                                                                              24987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Transmembrane; Signal-anchor.
                                                                                                                                                                                                                                                                                                                                                                                                              MW;
                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                 Score 68; DB 1;
Pred. No. 0.0016;
                                                                                                                                                                                                                                                                                                                                                                                                                            ВY
                                                                                                                                                                                                                                                                                                                                                                                                                                      EXTRACELLULAR (POTENTIAL).
CLEAVAGE (BY ADAM17) (BY SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TUMOR NECROSIS FACTOR, MEMBRANE FORM.
TUMOR NECROSIS FACTOR, SOLUBLE FORM.
CYTOPLASMIC (POTENTIAL).
SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (POTENTIAL)
                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                              16DE5F7AA5A7DB35 CRC64
                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY
                                                                                                                                                                                                                      233 AA
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                                                                                                                                                                                                                                                                                                                                                   ببر
••
                                                                                                                                                                                                                                                                                                                                                                              Length 229;
                                                                     Pecora;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ВУ
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                                                                                                                                             factor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tor commercia.
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                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AS
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MOD_RES
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VARIANT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cytokine 5:336-341(1993). [2]
                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PIR; S24642; S24642.
HSSP; P01375; 4TSV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; Z14137; CAA78511.1; --
EMBL; AF011926; AAB84086.1; --
EMBL; AF011927; AAB84087.1; --
EMBL; Z48808; CAA88743.1; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a between the Swiss Institute of Bioinformatics and the EMBI the European Bioinformatics Institute. There are no restrict the property of the EMBI through a specific content is the second of the EMBI through a specific content is the second of the EMBI through the second of the EMBI through the SWISS was a specific content in the EMBI through the second of the EMBI through through the EMBI through the EMBI through through the EMBI through the EMBI through through through the EMBI through t
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Submitted (JUL-1997) to t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN-Boran, and
                                                                                                                                                                                                                            TRANSMEM
                                                                                                                                                                                                                                                                                                  CHAIN
                                                                                                                                                                                                                                                                                                                                                                        Polymorphism.
                                                                                                                                                                                                                                                                                                                                                                                                             Cytokine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ---
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=96006582;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE-Blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF 50-233 FROM N.A.
                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUBCELLULAR LOCATION: Type II membrane protein. Also exists extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane form by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            proteolytic processing (By similarity).

PTM: The membrane form, but not the Soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1 (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISEASE: ĈACHEXIA ACCOMPANIES A VARIETY OF DISEASES, I CANCER AND INFECTION, AND IS CHARACTERIZED BY GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   proliferation and induce cell differentiation.
SUBUNIT: Homotrimer (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AND MALNUTRITION.
                                                                                                                                                                                                                                                                                                                                                                                                  Cytotoxin; Transmembrane; Phosphorylation;
                                                                                                                                                   57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N'Dama;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PubMed=7590981;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the EMBL/GenBank/DDBJ databases
   CLEAVAGE (BY ADAM17) (BY SIMILARITY)
PHOSPHORYLATION (BY CKI) (BY SIMILARITY.
BY SIMILARITY.
F -> C (IN STRAIN N'DAMA).
                                                                                                                                               EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                 CYTOPLASMIC (POTENTIAL).
SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                           TUMOR NECROSIS FACTOR, TUMOR NECROSIS FACTOR,
                                                                                                                                                                                        (POTENTIAL)
(IN STRAIN N'DAMA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Usage
                                                                                                                                                                                                                                                                                           MEMBRANE FORM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            by
                                                                                                                                                                                                                                                                                                                                                                                                      Signal-anchor;
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                                                                     SIMILARITY)
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use by non-profit institutions as long modified and this statement is not removed.

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RESULT 15
TNFA_SHEEP
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Best Local
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                                                                                                                                                                                                   <del>-</del>
                                                                                                                                                                                                                                <del>;</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Sequence of the cDNA encoding ovine tumor necrosis factor-alpha: problems with cloning by inverse PCR."; Gene 109:203-210(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE=Alveolar macrophage;
MEDLINE=92112044; PubMed=1765267;
Green I.R., Sargan D.R.;
                                                                                                                                                                                                                                                                                                                                                                              alpha."
                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=92155784; PubMed=1786996; J., Brandon M.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=91067496; PubMed=2251151;
Young A.J., Hay J.B., Chan J.Y.C.;
"Primary structure of ovine tumor necrosis factor alpha cDNA.";
Nucleic Acids Res. 18:6723-6723(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-NOV-1991 (Rel. 20, Created)
01-FEB-1994 (Rel. 28, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor ligand superfamily member 2) (Cachectin).
                                                                                                                                                                                                                                                                                                                                                               Tonumul
                                                                                                                                                                                                                                                                                                                                                                                         "Molecular cloning,
                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-Liver;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mammalia; Eutheria;
Bovidae; Caprinae; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ovis aries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TNFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
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01-NOV-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    179 RETPEWAEAKPWY 191
                                                                                                                          PTM: The solution (CP) similarity).

PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the phosphorylated on serine residues to soluble TNFRSF1A/TNFRI
                                                               SIMILARITY: BELONGS TO
                                                                                                             DISEASE:
                                                                                                                                                                                                        proliferation and induce cell differentiation.
SUBUNIT: Homotrimer (By similarity).
SUBCELULAR LOCATION: Type II membrane protein. Also exists as extracellular soluble form (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4 RETPEGAEAKPWY
                                                                                CANCER AND INFECTION, AND MALNUTRITION.
                                                                                                                                                                                            PTM: The soluble form derives from the membrane form
                                                                                                                                                                                                                                                                                                            unol. Cell Biol. 69:273-283(1991).
FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages and induce cell death of certain tumor cell lines. It is pote
                                                                                                                                                                                                                                                                    pyrogen causing fever by direct action or by stimulation or interleukin 1 secretion and is implicated in the induction cachexia, Under certain conditions it can stimulate cell
SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SHEEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               l Similarity
12; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        62
233 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (Sheep).
                                                                                         CACHEXIA ACCOMPANIES A VARIETY OF ID INFECTION, AND IS CHARACTERIZED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16
                                                                                                                                                                                                                                                                                                                                                                                     expression and characterization of ovine TNF
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25439
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92.3%;
                                                              THE TUMOR
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Pred. No. 0.0016;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -> EQ (IN REF. 3).
8AF55C002A9763B0 CRC64;
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                                                           NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            234 AA
                                                                                                                                                                                                                                                                 stimulate cell
                                                                                                                                                                                                                                                                                              by stimulation of
                                                                                       DISEASES, I
BY GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 233;
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PIR; S13114; S13114
PIR; S20661; S20661
PIR; JH0529; JH0529;
HSSP; P01375; 4TSV.
                                                                                                      MOD_RES
                                                                                   CARBOHYD
CONFLICT
                                                                            SEQUENCE
                                                                                                                                                                                                        PRINTS; PR01234; TNECROSISECT PRODOR; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1. T. PROSITE; PS00251; TNF_1; 1. PR0SITE; PS50049; TNF_2; 1.
                                                                                                                                  DOMAIN
                                                                                                                                                                                                                                                      InterPro; IPR003636;
InterPro; IPR000478;
Pfam; PF00229; TNF; 1
                                                                                                                                                                                                                                                                                                                        EMBL; X55966; CAA39437.1; -. EMBL; X55152; CAA38952.1; -. EMBL; X56756; CAA40076.1; -. EMBL; A19163; CAA01445.1; -.
                                                                                                                                                     TRANSMEM
                                                                                                                                                                       CHAIN
                                                                                                                                                                                       Signal-anchor.
                                                                                                                                                                                                   Cytokine;
 180
                                                                                                                                                                                                                                                                                                                                                                      entities requires a license agreement (S or send an email to license@isb-sib.ch).
        4 RETPEGAEAKPWY 16
                                                Local
                                   l Similarity
12; Conserv
                                                                                                                                                                                            Cytotoxin; Transmembrane; Glycoprotein; Phosphorylation;
                                                                           234 AA;
                                    Conservative
                                                                                           57
77
2
146
96
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1
36
192
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96
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234
35
                                                                          25536 MW;
                                              62.9%;
92.3%;
                                                                                                                                                                                                                                                                TNF_family.
                                                                                                                                                                                                                                                                          TNF_abc
                                    0;
                                              Score 66;
Pred. No.
                                                                               N-LINKED (GLCNAC. . .) (POTENTIAL) MISSING (IN REF. 1).
                                                                                                     EXTRACELLULAR (POTENTIAL).
CLEAVAGE (BY ADAM17) (BY SIMILARITY).
PHOSPHORYLATION (BY CK1) (BY SIMILARITY).
                                                                                                                                              CYTOPLASMIC (POTENTIAL) SIGNAL-ANCHOR (TYPE-II
                                                                                                    BY SIMILARITY
                                                                                                                                                                   TUMOR NECROSIS FACTOR,
                                                                                                                                          (POTENTIAL)
                                                                        4BCF8CCAB7956B88 CRC64;
                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                           (See http://www.isb-sib.ch/announce/
                                            DB 1;
0.0033;
                                                    Length 234
                                  Indels
                                                                                                                                                                 MEMBRANE FORM.
                                                                                                                                               MEMBRANE PROTEIN)
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                               Gaps
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Search completed: April Job time: 7.85484 secs 4, 2003, 08:40:27

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Result
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Maximum Match 100%
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Maximum DB
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Q91214 sigmodon hi
Q9erg6 peromyscus
Q9ii6 rattus norv
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Q9bef4 cabassous u
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aotus lemur
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talpa europ
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Q38619 xanthomonas	OBvonO micrococcus	093865 1000 10764			005339 stigmatella	coch) icho	N	075064 homo sanjen	076978 sycon ranha	Ogenh9 arahidoneis	3		~	5				O8taa0 homo sapien	09rve5 deinococcus	016148 schistosoma	Ogvrv9 anahaena sp		099nd1 tamiasciuru		Ð	091127 rattus norv	070332 mesocricetu	Q9ttq8 aotus nigri

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Matches 14
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InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
PRINTS; PR01234; TNECROSISFCT.
ProDom; PD002012; TNF_abc; 1.
PROSITE; PS50049; TNF_2; 1.
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01-OCT-2000 (TrEMBLrel. 1
01-OCT-2000 (TrEMBLrel. 1
01-DEC-2001 (TrEMBLrel. 1
                                                                                                                                                                            SEQUENCE FROM N.A.
TISSUE-PROSTATE TUMOR;
Shao C., Yan W., Zhu F., Yue W., Chai Y., Zhao Z., Wang C.;
Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AF098751; AAF71992.1; -.
HSSP; P01375; 51SW.
                                                                                         SEQUENCE
                                                                                                                                                                                                                                                        Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                            APCI protein (Fragment).
Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
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30 QRETPEGAEAKPWY 43
            3 QRETPEGAEAKPWY
                                             14;
                                                      Similarity
                                                                                      66 AA; 7300 MW;
                                           Conservative
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                                                    77.18;
                                                                                                                                                                                                                                                                    Primates;
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15,
                                                    Score 81; Pred. No.
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Last annotation update)
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                                                                                   C58DC35377E6D368 CRC64;
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RESULT 097543

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Q9BEF4;
01-JUN-2001
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01-DEC-2001
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NON_TER
SEQUENCE
                                                                                    PRINTS; PR01234; TNECROSISFCT Probon; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1. PROSITE; PS00251; TNF_1; 1.
                                                                                                                                                                     InterPro; IPR003636; TNF_abci.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                van Dijk M.A.M., de Jong W.W.;
"Indels indicate that rodents are monophyletic their sister group.";
Submitted (FEB-2000) to the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                              Cabassous unicinctus (Southern naked-tailed armadillo)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eu
Mammalia; Eutheria; Edentata; Dasypodidae; Cabassous.
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                                                                   PROSITE;
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                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=48852;
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SMART; SM00207; TNF; 1.
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InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (JUL-1997) to the EMBL; AF014513; AAD01539.1;
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in 4 Aotus specie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
NCBI_TaxID-37293;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tumor necrosis factor alpha TNF-ALPHA.
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01-MAY-1999
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(TrEMBLrel. 17, Last sequence update)
(TrEMBLrel. 19, Last annotation update)
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23742 MW;
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Pred. No.
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Platyrrhini;
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  83C591DD6883FD86 CRC64;
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ni; Cebidae;
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Aotinae; Aotu
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                        SEQUENCE FROM SEQUENCE FROM SECURINE-91086946; PubMed=10,000, M.C., Honold G., Messer G., Spengler U., Jung M.C., Honold G., Riethmueller G., Weiss E.H.;
"Polymorphic Structure of the Tumor Necrosis !
"Polymorphism in the First Intron of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q9UIV3;
Q9UIV3;
01-MAY-2000
01-MAY-2000
01-DEC-2001
                                                                                                                                                                                                                    Browning J.L., Ngam-ek A., Lawton P., DeMarinis J., Tizard Chow E.P., Hession C., O'Brine-Greco B., Foley S.F., Ware C "Lymphotoxin-beta: A new member of the TNF family that form heteromeric complex with lymphotoxin on the cell surface.";
                    Correlates with A Variant Amino Acid Level of TNF-beta Production.";
                                                                                                                               "Human lymphotoxin and tumor necrosis fa homology and chromosomal localization.";
                                                                                                                                                       Nedwin G.E., Naylor S.L., Sakaguchi A.Y., Pennica D., Goeddel D.V., Gray P.W.;
                                                                                                                                                                           SEQUENCE FROM N.A.
MEDLINE=86016093; PubMed=2995927;
                                                                                                                        Nucleic
                                                                                                                                                                                                              Cell 72:847-856(1993).
                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
MEDLINE=93208881; PubMed=7916655;
                                                                                                                                                                                                                                                                                                               TNF region
                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                        "Allograft inflammatory factory-1. molecule expressed in transplanted Transplantation 61:1387-1392(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                         Utans U., Quist W.C., McManus Wallace A.F., Russell M.E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Dense Alu clustering and a potential new family within a 90 kilobase HLA class III Nat. Genet. 3:137-145(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
MEDLINE=93272029; PubMed=8499947;
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Holzinger I., de 1
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Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Iris F., Bouqueleret
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=9606
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                                                                                                                     Res. 13:6361-6373(1985).
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Primates;
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Pred. No.
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uman hearts.";
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6.9e-05;
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                                         Human
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                                         TNF-beta
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RESULT 5
Q9BEC4
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AC Q9BE
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Best Local Similarity
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Q9BEC4;
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PROSITE; PS50049; TNF_2; 1.
SEQUENCE 232 AA; 25446 MW;
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EMBL; Y14768; CAA75070.1;
HSSP; P01375; 4TSV.
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InterPro; IPR000478; TNF_family.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Shiina T., Tamiya G., Oka A., Yamagata T., Yamagata N., Kikkawa E., Goto K., Mizuki N., Watanabe K., Fukuzumi Y., Taguchi S., Sugawara C., Ono A., Chen L., Yamazaki M., Tashiro H., Ando A., Ikemura T., Kimura M., Inoko H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE-20132445; PubMed-10668961;
Neville M.J., Campbell R.D.;
"Alternative splicing of the LST-1 gene located in the major histocompatibility complex on human chromosome 6.";
                                                                                                                                                                 177
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Complex expression patern of the TNF region gene LST1 through differential regulation, initiation, and alternative splicing."; Genomics 45:591-600(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
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"Characterization of a novel gene in the human major "Characterization of a novel gene in the human major histocompatibility complex that encodes a potential r kappa B family of proteins.";
Hum. Mol. Genet. 3:793-799(1994).
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MEDLINE=91139175; PubMed=1671667;

Abraham L.J., Du D.C., Zahedi K., Dawkins R.L., Whitehead A.S.;

"Haplotypic polymorphisms of the TNFB gene.";

"Immunogenetics 33:50-53(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "The BAT1 Gene in the MHC Encodes an Evolutionarily Conserved Putative Nuclear RNA Helicase of the D-E-A-D Family."; Genomics 26:210-218(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Peelman L., Chardon P., Nunes M., Renard C., Geffrotin C., Van Zeveren A., Coppieters W., Van de Weghe A., Bouquet Y., Strominger J., Spies T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=95324911; PubMed=7601445;
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                                                                                                                                                                                                       3 QRETPEGAEAKPWY
                                                                                                                                                              ORETPEGAEAKPWY
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                        PRELIMINARY;
                                                                                                                                                                                                                                                              Conservative
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                                                                                                                                                                                                                                                                                      77.18;
100.08;
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                                                                                                                                                                                                                                                   Score 81; DB 4; ]; Pred. No. 7.4e-05
0; Mismatches 0
                     PRT;
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                   216 AA
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Best Local :
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PROSITE;
NON_TER
                                                             PRINTS; PR01234; TNECROSISECT PRODUM; PD002012; TNF abc; 1. SMART; SM00207; TNF; 1 PROSITE; PS00251; TNF 1; 1. PROSITE; PS0049; TNF 2; 1.
                                                SEQUENCE
                                                                                                               Jang J.S., Kim B.E.;
Submitted (JAN-1998) to the EMBL/GenBank/DDBJ databases
EMBL; AF043342; AAC03542.1; -
HSSP; P01375; 1ABM.
InterPro; IPR003336; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                             01-DEC-2001 (TrEMBLrel. 19, Tumor necrosis factor alpha
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Mammalia; Eutheria;
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                                                                                                                                                                                                                                           Homo sapiens (Human).
                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                              NCBI_TaxID=9606;
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InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
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Mammalia; Eutheria; Insectivora;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRINTS; PR01234; TNECROSISECT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
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[1]
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13; Conserv
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13; Conserv
                                               157 AA;
    Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        de Jong W.W.;
that rodents are monophyletic and
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; 23542 MW;
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                                            17380 MW;
                                                                                                                                                                                                                    Chordata;
Primates;
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            72.48;
92.98;
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92.9%;
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Insectivora; Talpidae; Talpa.
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  0; Mismatches
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Last annotation update)
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Last annotation updat
             Pred. No. 0.
                      Score 76;
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Pred. No. 0.0002;
l; Mismatches
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                                          D1344822267E9F20 CRC64;
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                      DB 4;
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QRETPRGAEAKPWY

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RESULT 8
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ACCOMPAND DATE OF THE PROPERTY OF THE PROPERTY
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Best Local :
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01-JUN-2001
01-JUN-2001
01-DEC-2001
                                                                                                                                                                                                                   van Dijk M.A.M., de Jong W.W.;
"Indels indicate that rodents are monophyletic and lagomorphs are
their sister group.";
Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ286827; CAC28513.1;
HSSP; P01375; 1ABM.
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                    Pfam; PF00229; TNF; 1.
PRINTS; PR01234; TNECROSISECT
PRODOM; PD002212; TNF_abc; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bradypus tridactylus (Pale-throated three-toed sloth)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Evammalia; Eutheria; Edentata; Bradypodidae; Bradypus.
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Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases
EMBL; AJ286828; CAC28514.1;
HSSP; P01375; 1A8M.
InterPro; IPR003636; TNF_abc.
InterPro; IPR00478; TNF_family.
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"Indels indicate that rodents
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Eukaryota; Metazoa; Chordata; Craniat
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                                                                                                                                                                                               [nterPro;
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                                                                                                                                                      nterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       170 QRETPEGPEAKPWY 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 QRETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 Similarity
13; Conserv
SM00207;
                                                                                                                                      IPR003636; TNF_abc.
IPR000478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         217
217 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (TrEMBLrel. 17, Created)
(TrEMBLrel. 17, Last sequence up
(TrEMBLrel. 19, Last annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         217
23753 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   72.4%;
92.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 76; DB 6;
Pred. No. 0.00042;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     F760E887F6C29EBB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             217
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 217;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and lagomorphs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
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RESULT 10
Q9BEC5
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Q9BEE8
    RA PRA
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FT
SQ
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Best Local S
Matches 12
                                                                                                                                                                                                                                                                      Query Match
Best Local
                                                                                                                                                                                                                                                              Matches
                                       Eukaryota; Metazoa; Chordata; Craniata; vertebrata; висек
Mammalia; Eutheria; Insectivora; Tenrecidae; Tenrecinae;
                                                                                          Q9BEC5;
01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence up
01-DEC-2001 (TrEMBLrel. 19, Last annotation
Tumor necrosis factor (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROSITE;
PROSITE;
NON_TER
NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                           PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                       "Indels indicate that rodents are monophyletic and lagomorphs their sister group."; Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases. EMBL; AJ286830; CAC28522.1; -...HSSP; P01375; 4TSV. HSSP; P01375; TRE003636; TNF_abc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Erinaceus europaeus (Western European hedgehog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleo
Mammalia; Eutheria; Insectivora; Erinaceidae; Erinaceinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-JUN-2001 (TrEMBLrel. 17, Creat
01-JUN-2001 (TrEMBLrel. 17, Last
01-DEC-2001 (TrEMBLrel. 19, Last
Tumor necrosis factor (Fragment).
SEQUENCE FROM N.A. van Dijk M.A.M., o
                                                                      Tenrec ecaudatus (tailess tenrec)
                                                                                    TNFA.
                                                                                                                                                        Q9вес5
                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00229; TNF; 1.
PRINTS; PR01234; TNECROSISFCT.
PRODOm; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
                                   NCBI_TaxID=94439;
                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                     NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TNFA.
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                                                                                                                                                                                                                                                                                                                                NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR000478;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             van Dijk M.A.M., de Jong W.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=9365;
                                                                                                                                                                                                             168 QSETPEGAEARPWY 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    170 ORETPEGTEGKPWY 183
                                                                                                                                                                                                                                      w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ω
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                                                                                                                                                                                                                                    QRETPEGAEAKPWY 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 Similarity
12; Conserv
                                                                                                                                                                                                                                                            12,
                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                           PS00251; TNF_1; 1.
PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PS00251;
PS50049;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               217
217 AA;
                                                                                                                                                                                                                                                                                                         215 AA;
                                                                                                                                                                                                                                                                                                                     215
                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
 de Jong W.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TNF_1;
                                                                                                                                                                                                                                                                                                        215
23696 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             217
23655 MW;
                                                         Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                      68.6%;
85.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           69.5%;
                                                                                                                                                                                                                                                                                                                                                                                                               TNF_family
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Last sequence update)
                                                                                                                                                                                                                                                                     Score 72; DB 6;
Pred. No. 0.0018;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 73; DB 6;
Pred. No. 0.0012;
0; Mismatches
                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                        3E337E7E65F074EA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A7056710B6238074 CRC64;
                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              215
                                                                                                                                                      217
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                                                                                                                  update)
                                                                                                       update)
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                                                                                                                                                                                                                                                                               Length 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 217;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Euteleostomi;
ceinae; Erinaceus.
                                             Tenrec
                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                        Gaps
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                                                                                                                                                                                                                                                         0,
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RESULT 12
Q91ZL4
ID Q91ZL
AC Q91ZL
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                                                                                                                                                 RESULT
Q27978
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Best Local
                                                                                                        Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
Q91ZL4;
Q91ZL4;
                                                                                                                                                NON_TER
SEQUENCE
                                                                                                                                                                                              PRINTS; PR01234; TNECROSISFCT.
Prodom; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
                                                                                                                                                                           PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                        Dietz A.B., Neibergs H.L., Kehrli M.E.; "Development of a Bovine TNFa Single Strand Conformational Polymorphism.";
                                                                                                                                                                                                                                                                                                                                                                                                                 Q27978;
01-NOV-1996 (TrEMBLrel. 01,
01-NOV-1996 (TrEMBLrel. 01,
01-DEC-2001 (TrEMBLrel. 19,
                                                                                                                                                                    NON_TER
                                                                                                                                                                                                                              InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea; Bovinae; Bos.
                                                                                                                                                                                                                                                              EMBL; U11040; AAA19573.1;
HSSP; P01375; 4TSV.
                                                                                                                                                                                                                                                                     Submitted (JUN-1994) to the EMBL/GenBank/DDBJ databases EMBL; U11040; AAA19573.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NON_TER
NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                            STRAIN-HOLSTEIN;
                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                 Bos taurus (Bovine).
                                                                                                                                                                                                                                                                                                                                                                                                            TNFa (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q27978
                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; AJ286826; CAC28538.1; --
HSSP; P01375; 4TSV.
InterPro: IPR003636; TNF_abc.
InterPro: IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                               90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                  Local Similarity 92.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 171 RETPEGSETKPWY 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   their sister group.";
Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Indels indicate that rodents are monophyletic and lagomorphs
                                                                       4 RETPEGAEAKPWY 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4
                                                            RETPEWAEAKPWY 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity 84.0
                                                                                                                                               104 AA;
                                                                                                                                                         104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   217
217 AA;
        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                              64.8%;
92.3%;
                                                                                                                                             11662 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   65.7%;
84.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23845 MW;
                                                                                                   0;
                                                                                                             Score 68;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                        Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 69;
Pred. No.
      PRT;
                                                                                                                                          BCE0A76D9FFA44BD CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1C5013E9B777B54A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
     156 AA
                                                                                                           DB 6;
. 0.0034;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0.0052;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             B
                                                                                                                     Length 104;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 217;
                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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δõ
                                                                                            RESULT 13
Q9ERG6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                   Query Match
Best Local
                                                                                                                                                                                                                                                                                                                         O9ERG6

O9ERG6;

O9ERG6;

O1-MAR-2001 (TrEMBLrel. 16, Created)

O1-MAR-2001 (TrEMBLrel. 15, Last sequence update)

O1-DEC-2001 (TrEMBLrel. 19, Last annotation update)

O1-DEC-2001 (TrEMBLrel. 19, Last annotation update)

Tumor necrosis factor alpha (Fragment).

Peromyscus maniculatus (Deer mouse).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Eukaryota; Metazoa; Rodentia; Sciurognathi; Muridae; Sigmodontinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local
                                                                                         NON_TER
NON_TER
SEQUENCE
                                                                                                                                                  PRINTS; PR01234; TNECROSISFCT
ProDom; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                  TISSUE-SPLEEN;
Herbst M.M., Schountz T.;
"Cloning of the deer mouse interferon gamma, interleukin-10 necrosis factor genes.";
Submitted (SEP-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AF307013; AAG30264.1; -...
                                                                                                                         PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                 HSSP; P06804; ZTNF.
InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
                                                                                                                                                                                          Pfam; PF00229; TNF;
                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Blanco J.C., Pletneva L.M., Prince G.A.;
"Sigmodon hispidus cytokines, chemokines and interferons.";
Submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AF421388; AAL18818.1;
InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF00229; TNF; 1.
ProDom; PD002012; TNF_abc; 1
PROSITE; PS00251; TNF_1; UNK
PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sigmodon hispidus (Hispid cotton rat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammaalla; Eutheria; Rodentia; Sciurognathi; Muridae; Sigmodontinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequenc
01-MAR-2002 (TrEMBLrel. 20, Last annotat
Tumor necrosis factor alpha (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  102 KETPQGAELKPWY 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NON_TER
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=42415;
4 RETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4 RETPEGAEAKPWY 16
                                        10;
                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                        217
217 AA;
                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      156 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
            16
                                               61.98;
76.98;
                                                                                        23964 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17303 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61.9%;
76.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       UNKNOWN_1
                                    2
                               Score 65; DB 11; Length 217; Pred. NO. 0.022; Indels 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 65; DB 11
Pred. No. 0.016;
                                                                                    D6F90C74C0B3021F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DC565F3BC3C826E4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  update)
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                               0;
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                             Gaps
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                             0;
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173

KETPEGSELKPWY 185

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RESULT 15
Q9TTG7
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X Seidel M.F., Junier M.-P., Vetter H.;

X Submitted (MAY-2000) to the EMBL/GenBank/DDBJ databases.

X EMBL; AF269160; AAF82568.1; -.

X HSSP; P66804; 2TNF

X HSSP; P60804; 2TNF

X HSSP; P60804; TNF, 1.

X InterPro; IPR003636; TNF_abc.

X PIANT; PR002029; TNF; 1.

X PRINTS; PR01214; TNECROSISFCT.

X PRODOM; PD002012; TNF_abc; 1.

X PROSITE; PS00251; TNF_1.

X PROSITE; PS00251; TNF_1.

X PROSITE; PS00251; TNF_2; 1.

X PROSITE; PS00251; TNF_2; 1.

X PROSITE; PS0049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 10; Conserv
PRINTS; PRO1234; TNECROSISFCT.
ProDom; PD002012; TNF_abc; 1.
SWART; SM00207; TNF; 1.
PROSITE; PS00251; TNF_1; 1.
PROSITE; PS00251; TNF_2; 1.
NON_TER 1
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Q9JI26,
Q9JI26;
01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
TNF-alpha propeptide 3 (Fragment).
TNF-alpha propeptide 3 (Fragment)
                                                                                                                                                                                                                                                                                                                                                                          Q9TTG7
Q9TTG7;
01-MAY-2000
01-MAY-2000
01-OCT-2001
                                                                                                                                                                                                                                                                                                                                      Ol-MAY-2000 (TrEMBLrel. 13, Created)
Ol-MAY-2000 (TrEMBLrel. 13, Last sequence update)
Ol-OCT-2001 (TrEMBLrel. 18, Last annotation update)
Tumor necrosis factor alpha (Fragment).
TNF-ALPHA.
                                                                                                                                             "Aotus lemurinus gene for TNF alpha.";
Submitted (OCT-1998) to the EMBL/GenBank/DDBJ databases
EMBL; AF097329; AAF21304.1; ...
HSSP; P01375; 4TSV.
                                                                                                                                                                                                                                                                          Aotus lemurinus (Northern gray-necked night monkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Aotinae; Aotus.
NCBI_TaxID=43147;
                                                                                              InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                              Murillo L.A., Hernandez E., Echeverry S.J., Mendez J.A.,
Patarroyo M.E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     235 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25789 MW; C801B92D049C2F2E CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                           138 AA
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                          Query Match
Best Local Similarity /1...
****Thes 10; Conservative
                                                                                  SEQUENCE
3 QRETPEGAEAKPWY 16
||||| ||: |||
95 QRETPRGAKTNPWY 108
                                                                                  138 AA;
                                                                                  15269 MW;
                                                    60.0%;
                                         Score 63; DB 6; Pred. No. 0.028; 1; Mismatches
                                                                                  29275EE4F4CD5068 CRC64;
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                                                             Length 138;
                                           Indels
                                          0;
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Search completed: April 4, 2003, 08:42:07 Job time: 26.6774 secs

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Title:
Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                         d. No. is the number of results predicted by chance to have a
re greater than or equal to the score of the result being printed,
is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            seq
   of hits satisfying chosen parameters:
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   Query
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105
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Issued_Patents_AA: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGORETPEGAEAKPWYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                    /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
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US-08-500-860A-24
US-07-668-517-1
US-07-668-517-15
US-07-668-517-15
US-07-668-517-6
US-07-668-517-6
US-07-668-517-8
US-07-668-517-8
US-07-668-517-10
US-07-668-517-11
US-07-668-517-12
US-07-668-517-13
US-07-668-517-13
US-07-668-517-13
US-07-668-517-37
US-07-994-469A-6
US-07-994-469A-7
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45.606 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               262574
                                                                                                                                                                      Sequence 25, Appl
Sequence 24, Appl
Sequence 1, Appli
Sequence 2, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 16, Appli
Sequence 4, Appli
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                   10, Appl
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12, Appl
13, Appl
14, Appl
17, Appl
17, Appl
31, Appl
31, Appl
35, Appl
37, Appl
37, Appl
        US-08-500-860A-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 1
US-08-500-860A-25
                                                                                        REGISTRATION NUMBER: 32,205
REFERENCE/DOCKET NUMBER: 1487
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703)816-4000
TELEX: 200797 NIXN UR
INFORMATION FOR SEQ ID NO: 25:
SEQUENCE CHARACTERISTICS:
LENGTH: 17 amino acids
TYPE: amino acids
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 25, Application US/08500860A Patent No. 5891679
GENERAL INFORMATION:
                                                                    MOLECULE TYPE: FEATURE:
                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/500,860A
                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
ADDRESSE: NIXON & VANDERHYE |
STREET: 1100 NORTH GLEBE ROAD
CITY: ARLINGTON
STATE: VIRGINIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: BYRNE, THOMAS E.
REGISTRATION NUMBER: 32,
                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: FRANSEN, LUCIE
APPLICANT: SABLON, ERWIN
TITLE OF INVENTION: THEIR USE AS ACTIVE SUBSTANCES IN PHARMACEUTIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: LUCAS, RUDOLPH
APPLICANT: DE BAETSELIER,
APPLICANT: FRANSEN, LUCIE
APPLICANT: SABLON, ERWIN
                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                   OTHER INFORMATION: OTHER INFORMATION:
                                          LOCATION:
                                                        NAME/KEY: Binding-site
                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                                               COUNTRY: U.S.A. ZIP: 22201-4714
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                                                                               peptide
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               /note= "Biotin-Gly-Gly is coupled to the N-terminus of the peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PATRICK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-07-668-517-1
US-07-668-517-18
US-07-668-517-20
US-07-668-517-20
US-07-668-517-23
US-07-668-517-25
US-07-668-517-25
US-07-668-517-26
US-07-668-517-28
US-07-668-517-30
US-07-668-517-30
US-07-668-517-36
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IN PHARMACEUTICAL COMPOS:

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Result

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11 12 13 13 14 15 16 17 17 17 18 18 19 20 21 22 23 23 24 27

Minimum Maximum

DB BG

Total number

Sequence:

Run on:

protein

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Database

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US-07-668-517-1
; Sequence 1, Application US/07668517
; Patent No. 5262309
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US-08-500-860A-24
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                                                                                                                          RESULT 3
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                                                                                                                                                                                                                                                                                                                                        Matches
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ZIP: 22201-4/1"

COMPUTER READABLE FORM:

COMPUTER: Floppy disk

COMPUTER: IBM PC compatible

COMPUTER: PC-DOS/MS-DOS

COMPUTER: PC-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
   GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEX: 200797 NIXN UR INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 17 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: 14
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703)816-4000
TELEFAX: (703)816-4100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: modified-
LOCATION: 1
OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
NAME: BYRNE, THOMAS E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
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CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: 1100 NO CITY: ARLINGTON
                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
STRANDEDNESS: sir
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE:
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                                                                                                                                                                                                                 CGPKDTPEGAELKPWYC 17
INFORMATION:
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                                                                                                                                                                                                                                                                                                                                        13;
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17; Conserv
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DE BAETSELIER,
FRANSEN, LUCIE
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                                                                                                                                                                                                                                                                                                                                  Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
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100.0%; Pred. No. 1.8e-10;
n. Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ERWIN
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                                                                                                                                                                                                                                                                                                                                                                 83.8%;
76.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note=
to the
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                                                                                                                                                                                                                                                                                                                                                              Score 88;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1487-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Biotin-Gly-Gly is coupled N-terminus of the peptide"
                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                              DB 2;
9e-08;
                                                                                                                                                                                                                                                                                                                                                                                       Length 17
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US-07-668-517-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2, Application US/07668517 Patent No. 5262309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                               APPLICANT: Satoshi N
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 147 amino acids
TYPE: AMINO ACID
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CLASSIFICATION: 530
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: TELECOMMUNICATION INFORMATION: TELEPHONE: 202-371-8850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION: NAME: Matthew Jacob
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
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TITLE OF INVENTION: No. 5262309el Physiologically Active
TITLE OF INVENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
TITLE OF INVENTION: Cell, Pharmaceutical Composition and Method of Recovering
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES:
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                                                                              ZIP:
                                                                                                           COUNTRY:
                                                                                                                                                     STATE: D.C.
                                                                                                                                                                                                                         STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             92 QRETPEGAEAKPWY 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: UPPLICATION NUMBER: UPPLIC
                                                                                                                                                                                                                                                      ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
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                                                                          20005
                                                                                                                                                                              Washington
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                                                                                                                                                                                                                  E: Wenderoth,
805 Fifteenth
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805 Fifteenth Street, N.W., #700
                                                                                                           U.S.A.
                                                                                                                                                                                                                                                                                                                         Satoshi NAKAMURA et al.

VENTION: No. 5262309el Physiologically Active
VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
VENTION: Cell, Pharmaceutical Composition and Method of Recovering
EQUENCES: 50
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   Diskette,
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100.0%;
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                                                                                                                                                                                                                  Street, N.W., #700
                                                                                                                                                                                                                                                         Lind & Ponack
   5.25 inch, 500 Kb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5.25 inch, 500
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SOFTWARE: DisplayWrite

OPERATING SYSTEM:

IBM Compatible YSTEM: MS-DOS

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Best Local Similarity luu.
14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                   Patent No. 5262309
GENERAL INFORMATION:
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Sequence 15, Appara
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                                              ATTORNEY/AGENT INFORMATION:
                                                                                            CLASSIFICATION: 530 PRIOR APPLICATION DATA:
                                                                                                                                                   SOFTWARE: DisplayWrite CURRENT APPLICATION DATA:
                                                                                                                                                                                                                 COMPUTER READABLE FORM: MEDIUM TYPE: Diskette,
                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
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NAME: Matthew Jacob REGISTRATION NUMBER: 25,154 REFERENCE/DOCKET NUMBER:
                                                                FILING DATE:
                                                                                                                          APPLICATION NUMBER: U. FILING DATE: 19910322
                                                                                                                                                                                                                                                                                STREET: 805 Fift
CITY: Washington
STATE: D.C.
                                                                               APPLICATION NUMBER:
                                                                                                                                                                                     OPERATING SYSTEM: MS-DOS
                                                                                                                                                                                                        COMPUTER:
                                                                                                                                                                                                                                                             COUNTRY:
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                                                                                                                                                                                                                                                                                                                        ADDRESSEE:
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805 Fifteenth Street, N.W., #700
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                                                                                                                                                                                                                                                               U.S.A.
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                                                                                                                                                                                                  IBM Compatible
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                                                                                                                                        US/07/668,517
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; IDENTIFICATION METHOD:
; OTHER INFORMATION:
US-07-668-517-15
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Best Local
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                                                                                                                              INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO:
                                                FEATURE
                                                                                                                                                                                           TELEPHONE: 202-371-8850
                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
NAME: Matthew Jacob
REGISTRATION NUMBER: 25,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 1
FILING DATE: 1991032:
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: DisplayWrite
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Satoshi NAKAMURA et al.
TITLE OF INVENTION: No. 5262309el Physiologically Active
TITLE OF INVENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorgal
TITLE OF INVENTION: Cell, Pharmaceutical Composition and Method of Recoverin
NUMBER OF SEQUENCES: 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 148 amino acids
TYPE: AMINO ACID
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: 202-371-8850
                 NAME/KEY:
                                                           TOPOLOGY:
                                                                                            TYPE: AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM: MS-DOS
SOFTWARE: DisplayWrite
                                                                                  STRANDEDNESS:
                                                                                                                                                                           TELEFAX:
                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER:
IDENTIFICATION METHOD:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Diskette,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93 QRETPEGAEAKPWY 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: 202-371-8856
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                                                                                                                                                                             202-371-8856
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                                                                linear
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                                                                                                            amino acids
                                                                                                                                                                                                                                                                                                                                                  19910322
                                                                               single
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                                                                                                                                                                                                                                         25,154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lind & Ponack
                                                                                                                                                                                                                                                                                                                                                                                                                                                5.25 inch,
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; IDENTIFICATION METHOD: ; OTHER INFORMATION: US-07-668-517-16
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RESULT 8
US-07-668-517-4
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                                                                                                                  Matches
                                                                                                                              Query Match
Best Local Similarity
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Best Local :
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 149 amino acid
                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: TELECOMMUNICATION INFORMATION: TELEPHONE: 202-371-8850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 530 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
FILING DATE: 19910322
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                                                                                                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION: NAME: Matthew Jacob
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: but
                                                         94
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: DisplayWrite
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: D.C.
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                                                                                                                                                                                                                     LOCATION:
                                                                                                                                                                                                                                 NAME/KEY:
                                                                                                                                                                                                                                                            TOPOLOGY:
                                                                                                                                                                                                                                                                             STRANDEDNESS:
                                                                                                                                                                                                                                                                                           TYPE:
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                                                         QRETPEGAEAKPWY 107
                                                                                    QRETPEGAEAKPWY 16
                                                                                                                14;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                         : 149 amino acids
AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3: Wenderoth, Lind & Ponack
805 Fifteenth Street, N.W., #700
                                                                                                                                                                                                                                                                                                                                                               202-371-8856
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                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Satoshi NAKAMURA et al.
ZENTION: No. 5262309el Physiologically Active
ZENTION: No. 502309el Physiologically Active
ZENTION: Recombinant Microorganism
ZENTION: Cell, Pharmaceutical Composition and Method of Recovering
                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Diskette,
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                                                                                                                                            77.18;
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                                                                                                                              Score 81;
Pred. No
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Pred. No.
                                                                                                                Mismatches
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hes 0;
                                                                                                                                            DB 1;
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                                                                                                                               1.3e-05;
                                                                                                                                         Length 149
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; IDENTIFICATION METHOD: ; OTHER INFORMATION: US-07-668-517-4
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Best Local S
Matches 14
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                                                                                                                                                                                        GENERAL INFORMATION:
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TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                APPLICANT: Satoshi NAKAMURA et al.
TITLE OF INVENTION: NO. 5262309el Physiologically Active
TITLE OF INVENTION: Polypeptide, Recombinant Plasmid, Rec
TITLE OF INVENTION: Cell, Pharmaceutical Composition and
NUMBER OF SEQUENCES: 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OPERATING SYSTEM: MS-DO SOFTWARE: DisplayWrite CURRENT APPLICATION DATA:
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MEDIUM TYPE: Diskett
                                                                                      CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION: TELEPHONE: 202-371-8850
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                        STREET: 805 Files
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nes 14; Conserv
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                                                                                                                                                                                                                                                                                                              95 QRETPEGAEAKPWY 108
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COUNTRY:
                                                                 ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                  QRETPEGAEAKPWY 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     : 150 amino acids
AMINO ACID
                                                                                                                                                                                                                            Application US/07668517
                   D.C.
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                                                 805 Fifteenth Street, N.W., #700
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805 Fifteenth Street, N.W., #700
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                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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                                                                  Wenderoth,
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                                                                                                                                                                                                                                                                                                                                                                                               77.1%; Score 81; DB 1; 100.0%; Pred. No. 1.4e-05
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                                                                 Lind & Ponack
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                                                                                                                                     Recombinant Microorganism
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US-07-668-517-6
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                                           APPLICATION NUMBER: US
FILING DATE: 19910322
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
                                                                                                          SOFTWARE: DisplayWrite CURRENT APPLICATION DATA:
                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: Diskette,
                                                                                                                                                                                                                                                                                                               APPLICANT: Satoshi NAKAMURA et al.
TITLE OF INVENTION: No. 5262309el Physiologically Active
TITLE OF INVENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
TITLE OF INVENTION: Cell, Pharmaceutical Composition and Method of Recovering
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
ATTORNEY/AGENT INFORMATION:
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TELEPHONE: 202-371-8850
TELEFAX: 202-371-8856
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                 FILING DATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
                                                                                                                                           COMPUTER: IBM Compatible OPERATING SYSTEM: MS-DOS
                                APPLICATION NUMBER:
                                                                                                                                                                                                                            COUNTRY:
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                                                                                                                                                                                                                                                                                      ADDRESSEE:
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TYPE: AMINO ACID
STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Matthew Jacob
REGISTRATION NUMBER:
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                                                                                             US/07/668,517
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Pred. No.
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Best Local Similarity
Matches 14; Conserv
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                                                                          INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                       APPLICATION NUMBER: US
FILING DATE: 19910322
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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                                                         SEQUENCE CHARACTERISTICS:
                                                                                                       TELEPHONE: 202-371-8850
TELEFAX: 202-371-8856
                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
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TITLE OF INVENTION:
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LENGTH: 150 amino acid
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             STRANDEDNESS:
                                                                                                                                                 NAME: Matthew Jacob
REGISTRATION NUMBER: 25
REFERENCE/DOCKET NUMBER:
 TOPOLOGY:
                                                                                                                                                                                                               FILING DATE:
                                            LENGTH:
                                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE: DISI
COMPUTER: IBM CON
OPERATING SYSTEM:
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                          AMINO ACID
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                                     150 amino acids
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linear
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Satoshi NAKAMURA et al.

VENTION: No. 5262309el Physiologically Active VENTION: Polypeptide, Recombinant Plasmid, Rec VENTION: Cell, Pharmaceutical Composition and
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Street, N.W., #700
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Pred. No.
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Best Local S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM: MS-DOS
SOFTWARE: DisplayWrite
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/O
FILING DATE: 19910322
                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
LENGTH: 150 amino acids
TYPE: AMINO ACID
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                                                                                                                                                                                      FEATURE:
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                       ORETPEGAEAKPWY 16
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805 Fifteenth Street, N.W., #700
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                                                     Conservative
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100.0%; Pr
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                                                                 Score 81;
Pred. No.
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Pred. No.
                                                    Mismatches
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; IDENTIFICATION METHOD:
; OTHER INFORMATION:
US-07-668-517-10
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US-07-668-517-10
                                                                                                                             Sequence 11, Applicat Patent No. 5262309
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 14; Conserv
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                                NUMBER OF SEQUENCES: 5
                                                                      TITLE OF INVENTION:
                                                                                    TITLE OF INVENTION:
                                                                                                                   APPLICANT:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-8850
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PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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NAME: Matthew Jacob
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TITLE OF INVENTION: No. 5262309el Physiologically Active
TITLE OF INVENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
TITLE OF INVENTION: Cell, Pharmaceutical Composition and Method of Recovering
NUMBER OF SEQUENCES: 50
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                     ADDRESSEE:
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ZIP: 20005
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                                                                                                                                                               Application US/07668517
E: Wenderoth, Lind & Ponack
805 Fifteenth Street, N.W., #700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Application US/07668517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      150 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  805 Fifteenth Street, N.W., #700
                                                           Satoshi NAKAMURA et al.

BENTION: No. 5262309el Physiologically Active

VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism

VENTION: Cell, Pharmaceutical Composition and Method of Recovering
                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IBM Compatible SYSTEM: MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wenderoth,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Diskette,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       single
                                                                                                                                                                                                                                                                                                                          100.0%;
                                                   50
                                                                                                                                                                                                                                                                                                                                           77.18;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lind & Ponack
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5.25 inch, 500
                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                          Score 81;
Pred. No.
                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                         DB 1;
                                                                                                                                                                                                                                                                                                                          1.4e-05;
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                                                                                                                                                                                                                                                                                                                                    Length 150;
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RESULT 15
US-07-668-517-12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                 Sequence 12,
                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICATION NUMBER: US/07/668,517 FILING DATE: 19910322 CLASSIFICATION: 530 PRIOR APPLICATION DATA:
                                                           COMPUTER: IBM COMPATIBLE OPERATING SYSTEM: MS-DOS SOFTWARE: DisplayWrite CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTMARE: DisplayWrite
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/O
FILING DATE: 19910322
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette,
                                                                                                                                                                                                                                                                    APPLICANT: Satoshi NAKAMURA et al.
TITLE OF INVENTION: NO. 5262309el Physiologically Active
TITLE OF INVENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
TITLE OF INVENTION: Cell, Pharmaceutical Composition and Method of Recovering
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NFORMATION FOR SEQ ID NO:
                                                                                                                                                                    STREET: 805 Fiftee
CITY: Washington
STATE: D.C.
COUNTRY: U.S.A.
                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 25,154
REFERENCE/DOCKET NUMBER:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-8850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Diskette,
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                                                                                                                                                                                                                                         ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 150 amino acids
TYPE: AMINO ACID
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3 QRETPEGAEAKPWY 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY:
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OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: Washington STATE: D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        QRETPEGAEAKPWY 108
                                                                                                                                                               20005
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5262309
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20005
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                                                                                                                                                                                                                  E: Wenderoth, Lind & Ponack
805 Fifteenth Street, N.W., #700
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Pred. No.
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. 1.4e-05;
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Search completed: April 4, 2003, 08:43:41 Job time: 10.9677 secs
                                                         B
                                                                                                                                                         NAME/KEY:

LOCATION:

IDENTIFICATION METHOD:

OTHER INFORMATION:

US-07-668-517-12
                                                                                                          Matches
                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 150 amino acid
                                                                                                                                                                                                                               FEATURE:
                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
                                                  95 QRETPEGAEAKPWY 108
                                                                    3 QRETPEGAEAKPWY 16
                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                      STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                          TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                   TELEFAX:
                                                                                                                                                                                                                                                                                                                                                   TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                       NAME: Matthew Jacob
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                         14;
                                                                                                                                                                                                                                                                    AMINO ACID
                                                                                                                                                                                                                                                                            150 amino acids
                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                    : 202-371-8850
202-371-8856
                                                                                                                                                                                                                                          linear
                                                                                                                                                                                                                                                     single
                                                                                                                    77.1%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                     25,154
                                                                                                              Pred. No. 1.4e-05;
                                                                                                      Mismatches
                                                                                                                           Length 150;
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0; Gaps

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Result
No.
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    on:
                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                               Score
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      protein search, using sw model
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105
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                                                                                                                                                                                                                                                                                                                                                  Query
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
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/cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*
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/Cgn2_6/ptodata/2/pubpaa/US60_NEW_PUB.pep:*
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US-09-779-050A-24
US-09-903-327A-7
US-10-043-432-1
                            US-09-854-280-19

US-09-934-465-13

US-09-766-535A-1

US-09-756-161A-1

US-09-756-161A-1

US-10-010-229-1

US-10-013-450-1

US-10-014-534-1

US-09-981-289-2

US-09-981-289-2
                    US-10-145-014-3
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US-09-927-703-1
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Sequence 7, Appli
Sequence 1, Appli
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Sequence 1, Appli
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Sequence 28, Appl
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45.7	46.7	46.7	46.7	46.7	51.4	61.9	61.9	61.9	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1
749	235	235	235	235	104	268	235	151	597	233	233	233	233	233	233	233	233	233	233	233	233	233	233	233	233
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US-09-899-569A-2	US-10-012-452-14	US-09-899-059-7	US-09-246-129B-7	US-09-131-237-7	US-09-911-777-5	US-10-185-425-6	US-10-017-910-8	US-09-779-050A-40	US-09-903-327A-11	US-10-012-452-10	US-10-082-260-5	US-09-899-059-3	US-09-929-493-3	US-09-345-790-3	US-09-246-129B-3	US-09-840-707A-14	US-09-782-980-43	US-09-879-919-5	US-09-193-663-5	US-10-151-882-42	US-10-174-654-9	US-09-131-237-3	US-10-145-014-22	US-10-136-511-3	US-08-971-317A-5
N	14,	Sequence 7, Appli	Sequence 7, Appli	Sequence 7, Appli	о 5	Sequence 6, Appli	Sequence 8, Appli	40,	.1, ,	Sequence 10, Appl	Sequence 5, Appli	ω '	Sequence 3, Appli	Sequence 3, Appli	Sequence 3, Appli	Sequence 14, Appl	Sequence 43, Appl	<u>ر</u>	`	42,	9	Sequence 3, Appli	22,	Sequence 3, Appli	Sequence 5, Appli

ALIGNMENTS

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; TYPE: PRT
; ORGANISM: HOMO
US-09-877~156-25
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US-10-116-378-28
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US-09-877-156-25
APPLICANT: Ashkenazi, Avi J.
APPLICANT: Goddard, Audrey:
APPLICANT: Gurney, Austin
APPLICANT: Marsters, Scot A.
APPLICANT: Pitti, Robert M.
APPLICANT: Mood, William
TITLE OF INVENTION: NUCLEIC
TITLE OF INVENTION: NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: Catherine Tribouley
APPLICANT: Catherine Tribouley
TITLE OF INVENTION: NEW MEMBERS OF THE AND THE FAMILIES
FILE REFERENCE: 1408.003/200130.439C1
CURRENT TRILING DATE: 2001-06-08
CURRENT FILING DATE: 2001-06-08
PRIOR APPLICATION NUMBER: US 09/286,529
PRIOR APPLICATION NUMBER: US 09/286,529
PRIOR FILING DATE: 1998-04-05
                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 25
                                                                                                                                                                                               Sequence 28, Application US/10116378 Patent No. US20020150993A1
                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local 9
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                                                                                                                                                                                                                                                                                                                                                                                                         Matches
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SOFTWARE: FastSEQ for Windows Version 3.0
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                                                                                                                                                                                                                                                                                                                       95 QRETPEGAEAKPWY 108
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               1: Pitti, Robert M.
F: Wood, William
INVENTION: NOVEL TUMOR NECROSIS
                                                            Marsters, Scot A. Pitti, Robert M.
                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
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Pred. No. 5.5e-05;
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                     FACTOR RECEPTOR HOMOLOG
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; ORGANISM: Homo sapiens
US-10-116-378-28
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Best Local Similarity
Matches 14; Conserv
                          SEQ ID
                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
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LENGTH: 150
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: 60/181,800
PRIOR FILING DATE: 2000-02-11
NUMBER OF SEQ ID NOS: 52
SOFTWARE: 0=+~~~~
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                                                                                                                                                                                                                                                                                                                                                -09-903-327A-7
                                                                                                     CURRENT APPLICATION NUMBER: US/09/903,327A CURRENT FILING DATE: 2001-07-10 PRIOR APPLICATION NUMBER: 09/613,017
                                                                                                                                                                APPLICANT: Nemerow, Glen R.
APPLICANT: Li, Erguang
TITLE OF INVENTION: BIFUNCTIONAL MOLECULES AND VECTORS COMPLEXED THEREWITH FOR TARGET
TITLE OF INVENTION: GENE
TITLE OF INVENTION: DELIVERY
FILE REFERENCE: 22908-1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/10/116,378
CURRENT FILING DATE: 2002-04-04
PRIOR APPLICATION NUMBER: DAYLER APPLICATION NUMBER: 09/247,225
PRIOR FILING DATE: EARLIER FILING DATE: 1999-02-09
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US 60/074,087
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US 60/074,087
PRIOR FILING DATE: EARLIER FILING DATE: 1998-02-09
NUMBER OF SEQ ID NOS: 31
                                                                                    PRIOR FILING DATE: 2000-07-10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: BOYLE, WILLIAM
APPLICANT: HSU, HAILING
TITLE OF INVENTION: RECEPTOR FROM THE FAMILY
FILE REFERENCE: A-570B
                                           SOFTWARE: FastSEQ for Windows Version 4.0
                                                                 NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P1206R1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             95 QRETPEGAEAKPWY 108
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5.6e-05;
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US-10-043-432-1
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     Matches
                                                                                                                                  SOFTWARE: FastSEQ SEQ ID NO 1
                  Query Match
Best Local
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Best Local :
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PRIOR APPLICATION NUMBER: U.S.
PRIOR APPLICATION 1991-03-18
                                                                                                     TYPE: PF
                                                                                                                                                                   NUMBER OF SEQ ID
                                                                                                                                                                                                                                                                              PRIOR FILING DATE: 1993-02-02
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PRIOR APPLICATION NUMBER: U.S. 09/756,398
PRIOR FILING DATE: 2001-01-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Siegel, Scott
TITLE OF INVENTION: Anti-TNF Antibodies and Peptides
TITLE OF INVENTION: Human Tumor Necrosis Factor
                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: U.S.
                                                                                                                                                                                                                                                                                                                                               PRIOR FILING DATE: 1994-02-04
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LOCATION: (0)...(0)
OTHER INFORMATION: Fumor ne
OTHER INFORMATION: peptide)
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102 QRETPEGAEAKPWY 115
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                                                                                                                                                                                                                                                                APPLICATION NUMBER: U.S.
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                Similarity
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No. US20030054004A1
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     Conservative
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                                                                                                                                                                   NOS:
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                                                                                                                                                                                                                                                                                                               1993-01-29
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                  100.0%;
 Score 81; DB s; Pred. No. 5.8 0; Mismatches
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Pred. No.
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               DB 9; L, 5.8e-05;
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5.8e-05;
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Indels
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3 QRETPEGAEAKPWY 16

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US-09-927-703-1
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                                                                                                                                                                                                                                                                                                                                              Sequence 1, Application US/09927703
Patent No. US20020022720A1
                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
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Best Local Similarity
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                                                                                                                                                                                                        APPLICANT: Le, Junming APPLICANT: Vilcek, Jan APPLICANT: Daddona, P.
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                                                                                                                                                                                   APPLICANT:
       FITLE OF INVENTION: Anti-TWF Antibodies and Peptides
                                                                                                                    APPLICANT:
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SOFTWARE: FastSEQ for
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PRIOR APPLICATION NUMBER: U.S. 07/670,827
PRIOR FILING DATE: 1991-03-18
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PRIOR APPLICATION NUMBER: U.S. 08/013,413
PRIOR FILING DATE: 1993-02-02
PRIOR ADDITION TO THE PRIOR AD
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PRIOR FILING DATE: 1995-12-11
PRIOR APPLICATION NUMBER: U.S. 08/324,799
PRIOR EILING DATE: 1994-10-18
PRIOR APPLICATION NUMBER: U.S. 08/192,102
PRIOR PRIOR DATE: 1994-02-04
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PRIOR FILING DATE: 1994-02-04
PRIOR APPLICATION NUMBER: U.S. 08/192,093
PRIOR FILING DATE: 1994-02-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 157
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PRIOR FILING DATE: 1998-08-12
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APPLICANT: Siegel, Scott
TITLE OF INVENTION: Anti-TNF Antibodies and Peptides of
FILE REFERENCE: 0975.1005-008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      102 QRETPEGAEAKPWY 115
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                                                                                                                              Daddona, Peter Ghrayeb, John Knight, David M.
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c. US20010027249A1
                                                                                                                                                                                                                                 Vilcek, Jan
                                                                                                         Siegel, Scott
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Ghrayeb, John
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0975.1005-013
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US-09-854-280-19
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Best Local Similarity
"arches 14; Conserv:
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                                     NUMBER OF SEQ ID NOS:
SEQ ID NO 19
LENGTH: 157
TYPE: PRT
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PRIOR FILING DATE: 1993-02-02
PRIOR APPLICATION NUMBER: U.S. 07
PRIOR FILING DATE: 1992-09-11
PRIOR FILING DATE: 1992-09-11
PRIOR FILING DATE: 1992-03-18
PRIOR APPLICATION NUMBER: U.S. 07
PRIOR APPLICATION NUMBER: U.S. 07
PRIOR FILING DATE: 1991-03-18
                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 19, Application US/09854280 Patent No. US20020052027A1
                                                                                                       PRIOR APPLICATION NUMBER: US 09/311,832
PRIOR FILING DATE: 1999-05-14
PRIOR APPLICATION NUMBER: US 60/085,579
PRIOR FILING DATE: 1998-05-15
PRIOR APPLICATION NUMBER: US 60/113,621
PRIOR FILING DATE: 1998-12-23
                                                                                                                                                                                                                                           APPLICANT: Gurney, Austin
APPLICANT: Li, Hanzhong
APPLICANT: Wood, William I.
TITLE OF INVENTION: IL-17 HOMOLOGOUS POLYPEPTIDES AND THERAPEUTIC USES THEREOF
FILE REFERENCE: P1381R1C2
                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/854,280 CURRENT FILING DATE: 2001-05-10
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             ORGANISM: Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Chen,
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TYPE: PRT
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PRIOR FILING DATE: 1998-08-12
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(OR FILING DATE: 1995-12-11
(OR APPLICATION NUMBER: U.S. 08/324,799
(OR FILING DATE: 1994-10-18
(OR APPLICATION NUMBER: U.S. 08/192,102
(IOR FILING DATE: 1994-02-04
(IOR APPLICATION NUMBER: U.S. 08/192,861
(IOR APPLICATION NUMBER: U.S. 08/192,861
(IOR FILING DATE: 1994-02-04
(IOR APPLICATION NUMBER: U.S. 08/192,861)
(IOR FILING DATE: 1994-02-04
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FILING DATE: 1994-02-04
APPLICATION NUMBER: U.S.
FILING DATE: 1993-01-29
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Query Match Best Local Similarity

77.1%;

Score 81; Pred. No.

DB 10; 5.8e-05;

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US-09-934-465-13
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APPLICANT: Ashkenazi, Avi J.
APPLICANT: Ashkenazi, Avi J.
TITLE OF INVENTION: APO-2 LIGAND
FILE REFERENCE: 11669.22US03
CURRENT APPLICATION NUMBER: US/09/934,465
CURRENT FILING DATE: 2001-08-21
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PRIOR FILING DATE: 1996-01-09
NUMBER OF SEQ ID NOS: 17
                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: U.S. 08/324,799
PRIOR FILING DATE: 1994-10-18
PRIOR APPLICATION NUMBER: U.S. 08/192,102
PRIOR FILING DATE: 1994-02-04
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PRIOR APPLICATION NUMBER: U.S. 08/570,674
PRIOR FILING DATE: 1995-12-11
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CURRENT FILING DATE: 2001-01-18
PRIOR APPLICATION NUMBER: U.S. 09/133,119
PRIOR FILING DATE: 1998-08-12
PRIOR FILING DATE: 1998-08-12
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PRIOR APPLICATION NUMBER: U.S
PRIOR FILING DATE: 1994-02-04
                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: Anti-TNF Antibodies and Peptides TITLE OF INVENTION: Human Tumor Necrosis Factor FILE REFERENCE: 0975.1005-010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Le, Junming
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                                                      APPLICATION NUMBER: U.S.
APPLICATION NUMBER: U.S. FILING DATE: 1992-03-18
                                     FILING DATE:
                                                                               FILING DATE: 1993-02-02
                                                                                             FILING DATE: 1993-01-29 APPLICATION NUMBER: U.S.
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Siegel, Scott
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Ghrayeb, John
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Pred. No
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US-09-756-161A-1
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US-09-854-208-19
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Best Local Similarity
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Best Local
             APPLICANT: Daddona, Peter
APPLICANT: Ghrayeb, John
APPLICANT: Knight, David M.
APPLICANT: Siegel, Scott
TITLE OF INVENTION: Anti-TWF Antibodies and Peptides
TITLE OF INVENTION: Human Tumor Necrosis Factor
FILE REFERENCE: 0975.1005-007
CURRENT APPLICATION NUMBER: US/09/756,161A
CURRENT FILLING DATE: 2001-01-08
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                                                                                                                                                         APPLICANT: Le, Junming
APPLICANT: Vilcek, Jar
APPLICANT: Daddona, Pe
APPLICANT: Ghrayeb, Jo
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APPLICANT: Li, Hanzhong
APPLICANT: Wood, William I.
APPLICANT: Wood, William I.
TITLE OF INVENTION: II-17 HOMOLOGOUS POLYPEPTIDES AND THERAPEUTIC USES
TITLE OF INVENTION: THEREOF
FILE REFERENCE: P1381-R1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 15
TYPE: PRT
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PRIOR APPLICATION NUMBER: US 60/113,621
PRIOR FILING DATE: 1998-12-23
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PRIOR FILING DATE: 1999-05-14
PRIOR APPLICATION NUMBER: US 60/085,579
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CURRENT FILING DATE: 2001-05-10
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PRIOR APPLICATION NUMBER: U.S. 09/133,119
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TYPE: PRT
ORGANISM: Homo sapiens
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APPLICANT: Ghrayeb, John
APPLICANT: Knight, David M.
APPLICANT: Knight, David M.
APPLICANT: Siegel, Scott
TITLE OF INVENTION: Anti-TNF Antibodies and Peptides of
FILE REFERENCE: 0975.1005-013
CURRENT APPLICATION NUMBER: US/10/010,229
CURRENT FILING DATE: 2001-12-07
PRIOR APPLICATION NUMBER: US/9/927,703
PRIOR FILING DATE: 2001-08-10
NUMBER OF SEQ ID NOS: 19
SOFTWARF: Eactor 6
                                                                                                                                          ; ORGANISM: Homo sapiens
US-10-010-229-1
                                                                          Matches
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Best Local :
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                                                                                                                                                                        LENGTH: 157
TYPE: PRT
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SEQ ID NO 1
LENGTH: 157
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PRIOR FILING DATE: 1992-03-18
PRIOR APPLICATION NUMBER: U.S. 07/670,827
PRIOR FILING DATE: 1991-03-18
NUMBER OF SEQ ID NOS: 19
102 QRETPEGAEAKPWY 115
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OR FILING DATE: 1994-02-04
OR APPLICATION NUMBER: U.S. 08/192,861
OR FILING DATE: 1994-02-04
OR APPLICATION NUMBER: U.S. 08/192,093
OR FILING DATE: 1994-02-04
OR APPLICATION NUMBER: U.S. 08/010,406
OR FILING DATE: 1994-02-04
OR APPLICATION NUMBER: U.S. 08/010,406
OR FILING DATE: 1993-01-29
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                    QRETPEGAEAKPWY 16
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FILING DATE: 1993-02-02
APPLICATION NUMBER: U.S. 07/943,852
FILING DATE: 1992-09-11
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RESULT 15
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CURRENT APPLICATION NUMBER: US/10/043,450
PRIOR APPLICATION NUMBER: 09/927.703
PRIOR FILING DATE: 2001-08-10
PRIOR FILING DATE: 2001-01-08
PRIOR FILING DATE: 2001-01-08
PRIOR APPLICATION NUMBER: U.S. 09/756,398
PRIOR APPLICATION NUMBER: U.S. 09/133,119
PRIOR APPLICATION NUMBER: U.S. 09/133,119
PRIOR FILING DATE: 1998-08-12
PRIOR APPLICATION NUMBER: U.S. 08/570,674
PRIOR APPLICATION NUMBER: U.S. 08/570,674
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PRIOR APPLICATION NUMBER: U.S. 08/324,799
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PRIOR APPLICATION NUMBER: U.S. 08/324,799
PRIOR APPLICATION NUMBER: U.S. 08/192,102
PRIOR APPLICATION NUMBER: U.S. 08/192,102
PRIOR APPLICATION NUMBER: U.S. 08/192,102
PRIOR APPLICATION NUMBER: U.S. 08/192,861
PRIOR FILING DATE: 1994-02-04
PRIOR APPLICATION NUMBER: U.S. 08/192,861
PRIOR FILING DATE: 1994-02-04
PRIOR APPLICATION NUMBER: U.S. 08/192,861
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APPLICANT: Le, Junming
APPLICANT: Vilcek, Jan
APPLICANT: Unicek, Jan
APPLICANT: Daddona, Peter
APPLICANT: Ghrayeb, John
APPLICANT: Siegel, John
APPLICANT: Siegel, Scott
TITLE OF INVENTION: Antl-TNF Antibodies and Peptides of
FILE REFERENCE: 0975.1005-013
                                                                                                                                                                                                                                   GENERAL INFORMATION:
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LENGTH: 15'
TYPE: PRT
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PRIOR FILING DATE: 1994-02-04
PRIOR PPLICATION NUMBER: U.S. 08
PRIOR APPLICATION NUMBER: U.S. 08
PRIOR APPLICATION NUMBER: U.S. 08
PRIOR FILING DATE: 1993-02-02
PRIOR APPLICATION NUMBER: U.S. 07
PRIOR PILING DATE: 1992-09-11
PRIOR APPLICATION NUMBER: U.S. 07
PRIOR APPLICATION NUMBER: U.S. 07
PRIOR APPLICATION NUMBER: U.S. 07
PRIOR FILING DATE: 1992-09-11
PRIOR FILING DATE: 1992-03-18
DESIGN APPLICATION NUMBER: U.S. 07
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APPLICANT: Knight, David M.
APPLICANT: Siegel, Scott
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APPLICANT: Vilcek, Jan
APPLICANT: Daddona, Peter
APPLICANT: Ghrayeb, John
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les 14; Conserv
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CURRENT APPLICATION NUMBER: US/10/044.534

CURRENT EILING DATE: 2001-06-10

PRIOR APPLICATION NUMBER: US. 09/756.398

PRIOR FILING DATE: 2001-01-08

PRIOR APPLICATION NUMBER: US. 09/133.119

PRIOR APPLICATION NUMBER: US. 09/133.119

PRIOR PRIOR PRILING DATE: 1998-08-12

PRIOR PRILING DATE: 1998-12-11

PRIOR PRILING DATE: 1995-12-11

PRIOR PRILING DATE: 1994-02-04

PRIOR PRILING DATE: 1993-02-04

PRIOR PRILING DATE: 1993-01-29

PRIOR PRILING DATE: 1992-03-18

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108
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mTNF-alpha tip. S
Tumour necrosis fa
Murine TNF derived
Murine TNF derived
Murine TNF derived
Murine TNF derived
Tumour necrosis fa
Tumour necrosis fac
Sequence of tumour
Rat TNF-alpha mute
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	52	AAP95660	AAP81068	AAP81066	AAP82303	AAP82190	AAP81236	AAP71245	AAP70528	AAR05612	AAP91635	AAY71982	AAB67245	AAP81853	AAP82043	AAR72456	AAR05513	AAR05469	AAY82194	AAP91633	AAB08283	AAB86310	AAU10546	AAY88596	AAR88589	99	AAR05328	AAP60530	4	AAP70558	380	AAP60527	024	AAR41862
Polypeptide with a	Ċ.	mour act	of new	uence of new	•	gue.	Modified tumour ne	d polyp	Synthetic tumour n	Antitumour peptide	Polypeptide derive	C-terminal region	nom	of modi	e of new t	necrosis	necrosis		S18	Polypeptide derive	Amino acid sequenc	on construct	Rat tumour necrosi		se tumour necr	tumour		mour	Human tumour necro	Tumor necrosis fac	7	Ę	alpha. Mus	Murine TNF-alpha m

ALIGNMENTS

RESULT 1 AAR60232

AAR60232 standard; peptide;

17

AA

AAR60232;

mTNF-alpha tip.

16-MAR-1995 (first entry)

WPI; 1994-279746/34. De Baetselier P, Fransen L, 03-FEB-1993; 02-FEB-1994; 18-AUG-1994 Key Synthetic. mutagenesis; trypanoside TNF-alpha; tumor necrosis factor-alpha; tip peptide; mutein; cancer; sepsis; inflammation; cytokine; metastasis; lectin; adhesion; (INNO-) INNOGENETICS NV SA. WO9418325-A Misc-difference 93EP-0400262 94WO-EP00286 /note= "N-terminal biotin Gly-Gly" Location/Qualifiers Lucas **7**2 Sablon E

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RESULT 2
AAY82197
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XX AAY 82197
AC AAY8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      antisense peptide(s) - used in the treatment of disea
conditions associated with the in vivo activities of
cancer, sepsis, inflammation, etc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-AUG-1998;
18-SEP-1998;
21-OCT-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New tumour necrosis factor -alpha muteins, antibodies and antisense peptide(s) - used in the treatment of diseases and
region of mouse TNF-alpha, for treating oedema. The peptides form pharmaceutical compositions for treating oedema, especially pulmonary oedema. The peptides are non-toxic, whilst retaining the oedema resorption-inducing capacity as TNF. The present sequence represents a specifically claimed TNF-alpha circularised peptide from the present
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                                                                                                                                                 The present invention describes the use of peptides comprising a chain of 7-17 contiguous amino acids derived from the Ser100-Glul16 region of human tumour necrosis factor-alpha (TNF-alpha), or Ser99-Glul15
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                                                                                                                                                                                                                                                                Claim 8; Page 16; 26pp; English
                                                                                                                                                                                                                                                                                                                                                    Use of peptides derived from human or mouse tissue necrosis factor-alpha (TNF-alpha), and comprising 7-17 contiguous am
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Lucas R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-FEB-2000.
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                                                                                                                                                                                                                                                                                                                       preventing or treating oedema
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               l Similarity
17; Conserv
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98EP-0870198.
98EP-0870222.
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Pred. No. 5.1e-09;
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RESULT 3
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Matches 17
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Best Local
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18-SEP-1998;
21-OCT-1998;
                                                                                                                                                                                                                                                                           of 7-17 contiguous amino acids derived from the Ser100-Glul16 region of human tumour necrosis factor-alpha (TNF-alpha), or Ser99-Glul15 region of mouse TNF-alpha, for treating oedema. The peptides form pharmaceutical compositions for treating oedema, especially pulmonary oedema. The peptides are non-toxic, whilst retaining the oedema resorption-inducing capacity as TNF. The present sequence represents a murine TNF derived peptide used in an example from the present
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                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention describes the use of peptides comprising a chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 1; Page 7; 26pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Use of peptides derived from human or mouse tissue necrosis factor-alpha (TNF-alpha), and comprising 7-17 contiguous am
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lucas R,
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                                                                                                    Local Similarity
les 17; Conserv
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17; Conser
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                                                                                                  100.0%; ilarity 100.0%; Conservative 0
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98EP-0870198.
98EP-0870222.
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Pred. No. 5.1e-09;
Mismatches 0;
                                                                                                  Score 108; DB 21; Pred. No. 5.7e-09; Mismatches 0;
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RESULT 4 AAY82199

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RESULT 5
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Best Local
               TNF-alpha; tumor necrosis factor-alpha; tip peptide; mutein; cancer; sepsis; inflammation; cytokine; metastasis; lectin; adhesion; mutagenesis; trypanoside.
       Synthetic.
                                                                  hTNF-alpha
                                                                                      16-MAR-1995
                                                                                                                           AAR60233 standard;
                                                                                                           AAR60233;
                                                                                                                                                                                                                                                                              The present invention describes the use of peptides comprising a chain of 7-17 contiguous amino acids derived from the Ser100-Glul16 region of human tumour necrosis factor-alpha (TNF-alpha), or Ser99-Glul15 pharmaceutical compositions for treating oedema. The peptides form oedema. The peptides are non-toxic, whilst retaining the oedema resorption-inducing capacity as TNF. The present sequence represents a murine TNF derived peptide used in an example from the present
                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                     Use of peptides derived from human or mouse tissue necrosis factor-alpha (TNF-alpha), and comprising 7-17 contiguous am
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                                                                                                                                                                                                                                                                                                                                                                                                  for preventing or treating oedema
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (INNO-) INNOGENETICS
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18-SEP-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      proinflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Murine TNF derived peptide mutated tip peptide 99-115 (mutTip).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tumour necrosis factor alpha; TNF-alpha; human;
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                                                                                                                                                                                              1 CGPKDTPEGAELKPWYC 17
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|CGPKDAPAGAALKPWYC 19
                                                                                                                                                                                                                              Similarity
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                                                                                 (first entry)
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98EP-0870198.
98EP-0870222.
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                                                                                                                          peptide;
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                                                                                                                                                                                                                           84.3%;
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                                                                                                                                                                                                             Score 91; DB 21;
Pred. No. 1.7e-06;
0; Mismatches 3
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                                    14-AUG-1998;
18-SEP-1998;
21-OCT-1998;
                 (INNO-) INNOGENETICS
                                                                                         24-FEB-2000
                                                                         10-AUG-1999;
                                                                                                          WO200009149-A1
                                                                                                                             Disulfide-bond
                                                                                                                                                       Homo sapiens
                                                                                                                                                                          Tumour necrosis factor alpha; TNF-alpha; human;
                                                                                                                                                                                          Tumour necrosis factor alpha derived circularised peptide
                                                                                                                                                                        proinflammatory;
                                                                                                                                                                                                                     08-JUN-2000
                                                                                                                                                                                                                                                      AAY82196 standard;
                                                                                                                                                                                                                                        AAY82196;
                                                                                                                                                                                                                                                                                                                                                                                  The TNF-alpha tip peptides given in AAR60232-42 were modified with N-terminal biotin-Gly-Gly moieties and were used to demonstrate that the tip region of mouse and human TNF-alpha contains the trypanosomal and lectin-like activities of the molecule and is involved in TNF-induced lethal shock.
                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New tumour necrosis factor -alpha muteins, antibodies and antisense peptide(s) - used in the treatment of diseases and conditions associated with the in vivo activities of TNF-A ec
                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 61; 132pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                cancer, sepsis, inflammation, etc
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-FEB-1994;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        W09418325-A
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                                                                                                                                                                                                                                                                                                                                                  Local
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                                                                                                                                                                                                                                                                                                                   1 CGPKDTPEGAELKPWYC
  70,
                                                                                                                                                                                                                                                                                                   CGORETPEGAEAKPWYC 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1994-279746/34.
                                                                                                                                                                                                                                                                                                                                                Similarity
De Baetselier P,
                                                                                                                                                                                                                                                                                                                                                                             17
                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                      Conservative
                                  98EP-0870180.
98EP-0870198.
98EP-0870222.
                                                                      99WO-EP05806
                                                                                                                                                                                                                                                                                                                                                                            AA;
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                                                                                                                            Location/Qualifiers
1..17
                                                                                                                                                                 pulmonary oedema; cyclic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  93EP-0400262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94WO-EP00286
                                                                                                                                                                                                                                                      peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                 NV.
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                                                                                                                                                                                                                                                                                                                                               81.5%;
76.5%;
                                                                                                                                                                                                                                                                                                                     17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "N-terminal biotin Gly-Gly"
                                                                                                                                                                                                                                                      17
                                                                                                                                                                                                                                                                                                                                  Score 88; DB
Pred. No. 4.2e
2; Mismatches
                                                                                                                                                                                                                                                                                                                                     2;
                                                                                                                                                                                                                                                      ΑA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lucas
                                                                                                                                                                                                                                                                                                                                ; DB 15,
J. 4.2e-06;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sablon
                                                                                                                                                                         mouse; oedema;
                                                                                                                                                                                                                                                                                                                                                   Length 17;
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Pugin J,

Bloc A,

Fransen

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Matches
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of human tumour necrosis factor-alpha (TNF-alpha), or Ser99-Glu115 region of mouse TNF-alpha, for treating oedema. The peptides form pharmaceutical compositions for treating oedema, especially pulmonary oedema. The peptides are non-toxic, whilst retaining the oedema
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention describes the use of peptides comprising a chain of 7-17 contiguous amino acids derived from the Ser100-Glul16 region of human tumour necrosis factor-alpha (TNF-alpha), or Ser99-Glul15 region of mouse TNF-alpha, for treating oedema. The peptides form pharmaceutical compositions for treating oedema, especially pulmonary oedema. The peptides are non-toxic, whilst retaining the oedema resorption-inducing capacity as TNF. The present sequence represents a specifically claimed TNF-alpha circularised peptide from the present
                                                     The present invention describes the use of peptides comprising a character 7 \cdot 17 contiguous amino acids derived from the Ser100-Glull6 region
                                                                                                 Claim
                                                                                                                              Use of peptides derived from human or mouse tissue necrosis factor-alpha (TNF-alpha), and comprising 7-17 contiguous amino acids,
                                                                                                                        for preventing or treating
                                                                                                                                                                              WPI; 2000-282855/24.
                                                                                                                                                                                                                                                                     14-AUG-1998;
18-SEP-1998;
                                                                                                                                                                                                                              (INNO-) INNOGENETICS NV
                                                                                                                                                                                                                                                                                                            10-AUG-1999;
                                                                                                                                                                                                                                                                                                                                     24-FEB-2000.
                                                                                                                                                                                                                                                                                                                                                               WO200009149-A1
                                                                                                                                                                                                                                                                                                                                                                                        Mus sp
                                                                                                                                                                                                                                                                                                                                                                                                                proinflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                           Tumour necrosis factor alpha; TNF-alpha;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tumour necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY82195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY82195 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Use of peptides derived from human or mouse tissue necrosis factor-alpha (TNF-alpha), and comprising 7-17 contiguous amino acids, for preventing or treating oedema
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
mes 13; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGORETPEGAEAKPWYC 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGPKDTPEGAELKPWYC 17
                                                                                                5; Page 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000-282855/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Page 16; 26pp; English
                                                                                                                                                                                                      De
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                      Baetselier P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                      98EP-0870180.
98EP-0870198.
98EP-0870222.
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                                                                                                                                                                                                                                                                                                          99WO-EP05806
                                                                                                                                                                                                                                                                                                                                                                                                                                                      factor
                                                                                             26pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                pulmonary oedema
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   alpha derived peptide #2.
                                                                                                                         oedema
                                                                                                                                                                                                     Pugin J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                           human;
                                                                                                                                                                                                     Ά,
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                                                                                                                                                                                                     Fransen
                                                                                                                                                                                                                                                                                                                                                                                                                           mouse;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                   ŗ
                                                                                                                                                                                                                                                                                                                                                                                                                           oedema;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                    a chain
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RESULT 9
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                                                                                                                                                                                            Matches
                                                                                                                                                                                                    Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JLT 8
70557
03-JUL-1986
                                                       Sequence of tumour
                                                                         07-AUG-1991
                                                                                           AAP60526;
                  WO8603751-A
                                   Anticancer agent;
                                                                                                            AAP60526 standard;
                                                                                                                                                                                                                                                       The sequence ehoodes tumor necrosis factor which is an antitumor agent and a lymphokine. The sequence may optionally have up to 16 additional AA as the N-terminal.
                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                           Disclosure; Page 12; 12pp; Japanese
                                                                                                                                                                                                                                                See also AAP70558.
                                                                                                                                                                                                                                                                                                                                WPI; 1987-209318/30
                                                                                                                                                                                                                                                                                                                                                                   06-DEC-1985;
                                                                                                                                                                                                                                                                                                                                                                                    06-DEC-1985;
                                                                                                                                                                                                                                                                                                          Anticancer factor - expressed by specified amino acid sequence
                                                                                                                                                                                                                                                                                                                                                  (TANA ) TANABE SEIYAKU
                                                                                                                                                                                                                                                                                                                                                                                                      18-JUN-1987.
                                                                                                                                                                                                                                                                                                                                                                                                                        JP62135493-A
                                                                                                                                                                                                                                                                                                                                                                                                                                         TNF; antitumor
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tumor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAP70557;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             resorption-inducing capacity as TNF. The present sequence represents a specifically claimed TNF-alpha peptide from the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-FEB-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAP70557 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                         99
                                                                                                                                                                                                   Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3 PKDTPEGAELKPWY 16
                                                                                                                                                                 PKDTPEGAELKPWY 16
                                                                                                                                                        PKDTPEGAELKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PKDTPEGAELKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                          necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                              154 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14 AA;
                                                                                                                                                                                           Conservative
                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                   85JP-0275392
                                                                                                                                                                                                                                                                                                                                                                                   85JP-0275392
                                 antitumour; antimalarial;
                                                       necrosis
                                                                                                           Protein; 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein;
                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                             77.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     77.8%;
                                                                                                                                                                                                                                                                                                                                                  X
                                                     factor (TNF).
                                                                                                                                                                                          0;
                                                                                                                                                                                                Score 84;
; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                           A
                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     No.
                                                                                                                                                                                                 DB 8; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.3e-05;
thes 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 21;
                                tumour necrosis factor.
                                                                                                                                                                                         0
                                                                                                                                                                                                         Length 154;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 14
                                                                                                                                                                                         Indels
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                                                                                                                                                                                        0;
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                                                                                                                                                                                       Gaps
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RESULT 10
AAR41861
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Best Local
                                       Misc-difference
                                                                           Misc-difference
                                                                                                       Misc-difference
                                                                                                                                  Misc-difference
                                                                                                                                                                     Misc-difference
                                                                                                                                                                                                Rattus rattus
                                                                                                                                                                                                            TNF trimer; ion channel; mutein.
                                                                                                                                                                                                             Tumour Necrosis Factor alpha; TNF-a; target membrane permeability;
                                                                                                                                                                                                                                Rat TNF-alpha mutein with modified channel-forming activity.
                                                                                                                                                                                                                                                           29-MAR-1994 (first entry)
                                                                                                                                                                                                                                                                                              AAR41861 standard; protein; 156
                                                                                                                                                                                                                                                                                    AAR41861;
                                                                                                                                                                                                                                                                                                                                                                                                                         TNF-like polypeptides and compsns. are produced by the fermentation of host cells transformed with at least one DNA sequence which codes for a mammalian TNF-like polypeptide operatively linked to an expression control sequence in the transformed host.
                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                            101 PKDTPEGAELKPWY 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mammalian tumour necrosis factors - produced by pro-karyotic hosts transformed with recombinant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (BIOJ ) BIOGEN NV.
(FIER/) FIERS W C.
(ALLE/) ALLET B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1986-182891/28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-OCT-1985;
21-DEC-1984;
09-OCT-1986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fiers WC, Fransen LM,
VanDerHeyden J, Allet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (BIOG-) BIOGEN INC
                                                                                                                                                                                                                                                                                                                                                      3 PKDTPEGAELKPWY 16
                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-DEC-1985;
                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAN60440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Page 66-67; 93pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                      156 AA;
                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                       /note=
111
                                                                           /label= Trp, Ser, Thr, Ala
/note= "wild-type channel
97
/note= "wild-type channel residue is Lys'
                      /label= Arg, Cys, Asp,
                                                     /label= Arg, Cys,
or His
                                                                                                                                 /note= "wild-type channel residue is Lys"
57
                                                                                                                                                                    Location/Qualifiers
                                                                                                     /label= Trp, Ser, Thr, Ala, Met, c
/note= "wild-type channel residue
                                                                                                                                         /label= Glu, Arg, Cys, Asp, Gln, Asn, Ser, or His
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               85US-0785847.
84US-0684595.
86WO-US02133.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    85WO-EP00721.
                                                                                                                                                                                                                                                                                                                                                                           77.8%; 50
100.0%; Pr
                                     "wild-type channel residue is Lys"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ₽,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tavernier JHL,
B, Washima EH;
                                                                                                                                                                                                                                                                                                                                                                            Score 84; DB
b; Pred. No. 0.0
0; Mismatches
                                                                                                   Thr, Ala, Met, cys, Phe or Tyr
channel residue is Leu"
                                                       Glu, Asp, Gln, Asn, Ser,
                                                                                                                                                                                                                                                                                               A
                                                                                       Thr, Ala,
                       Gln,
                                                                                                                                                                                                                                                                                                                                                                        DB 7; LC. 0.00014; 0;
                                                                             la, Met, C
residue
                   Asn, Ser, Thr,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Marmenout ALM;
                                                                          , Cys or Phe
ue is Tyr"
                                                                                                                                                                                                                                                                                                                                                                                         Length 156;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Culturing
                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                         Thr
                                                                                                                                                  Thr
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                                                                                                                                                                                                                                                                                                                                                                      Gaps
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RESULT 11
AAR41862
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local :
                                                Misc-difference
                                                                                                             Mus musculus
                                                                                                                                     Tumour Necrosis Factor alpha; TNF-a; TNF trimer; ion channel; mutein.
                                                                                                                                                                              Murine TNF-alpha mutein with modified channel-forming activity.
                                                                                                                                                                                                                                         29-MAR-1994 (first entry)
                                                                                                                                                                                                                                                                                                                AAR41862 standard; protein; 156
                                                                                                                                                                                                                                                                                           AAR41862;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The sequence of rat TNF-alpha disclosed in Agric.Biol.Chem 53: 1733-1736 (1989) is given in the specification. A modified version of this sequence is claimed in which at least one of the channel residues is substituted (see Features Table). The resulting TNF-alpha mutein has modified channel activity compared to wild-type the sequence of the channel activity compared to wild-type the sequence of the sequence of
                                                                                                                                                                                                                                                                                                                                                                                                                       101 PKDTPEGAELKPWY 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 6; Page 37-38 and 51-53; 72pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Producing modified tumour necrosis factor alpha - useful regulating tumour necrosis factor channel activity e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1993-303462/38.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wisnieski BJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-MAR-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                             3 PKDTPEGAELKPWY 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (WISN/) WISNIESKI B J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-MAR-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-SEP-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   W09318148-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Misc-difference 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     156 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                            Location/Qualifiers
/label= Glu, Arg, Cys, or His
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        92US-0852625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                93WO-US02475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /label= Trp, Ser, Thr, Ala, Cys or Tyr
/note= "wild-type channel residue is L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note= "wild-type channel residue is Glu"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        77.8%; >c.
100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /label= Trp, Ser,
/note= "wild-type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /label= Ala, Val,
/note= "wild-type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /label= Trp, Phe, Ser, Thr, Ala, Met or Cys
/note= "wild-type channel residue is Tyr"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /label= Lys, Arg, Cys, Asp, Gln, Asn, Ser,
or Thr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 84;
Pred. No.
                                                                                                                                                                                                                                                                                                                      ΑA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                       target membrane permeability;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Thr, Ala, Met, C
channel residue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ser or Thr
channel residue is Gly"
      Asp, Gln, Asn, Ser,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             activity compared to wild-type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 14;
0.00014;
hes 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 156;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cys, Phe or Tyr
e is Ile"
        Thr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    for
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RESULT 12
AAR60244
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                                                                                           Matches
                                                                                                             Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Misc-difference
                                                                                                                                                   The sequence of murine TNF-alpha disclosed in PNAS USA 83:1670-1674 (1986) is given in the specification. A modified version of this sequence is claimed in which at least one of the channel residues is substituted (see Features Table). The resulting TNF-alpha mutein has modified channel activity compared to wild-type.
                                                                                                                                                                                                                                 Producing modified tumour necrosis factor alpha - useful regulating tumour necrosis factor channel activity e.g. increasing permeability
                                                                                                                                                                                                                                                                                              Wisnieski
                                                                                                                                                                                                              Claim 6; Page 39 and 51-53; 72pp; English.
                                                                                                                                                                                                                                                                          WPI; 1993-303462/38
  AAR60244
                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                 (WISN/) WISNIESKI B
                                                                                                                                                                                                                                                                                                                                    12-MAR-1992;
                                                                                                                                                                                                                                                                                                                                                        12-MAR-1993;
                                                                                                                                                                                                                                                                                                                                                                             16-SEP-1993
                                                                                                                                                                                                                                                                                                                                                                                                WO9318148-A
                                                   101 PKDTPEGAELKPWY 114
                                                                                                     Local Similarity
                                                                       w
                                                                      PKDTPEGAELKPWY 16
 standard;
                                                                                                                                                                                                                                                                                              BJ;
                                                                                                                                  156 AA;
                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /label= Trp, Phe, i
/note= "wild-type of 120"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note=
97
                                                                                                                                                                                                                                                                                                                                    92US:0852625
                                                                                                                                                                                                                                                                                                                                                                                                                                      /note=
156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /label= Trp, Ser, Thr, Ala, Met, (
/note= "wild-type channel residue
59
                                                                                                                                                                                                                                                                                                                                                         93WO-US02475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note= "wild-type channel residue is Lys" 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note= "wild-type channel residue is Lys"
115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /label= Arg, Cys,
or His
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /label= Lys, Arg,
or Thr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note= "wild-type channel residue is Lys"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /label-
                                                                                                                                                                                                                                                                                                                                                                                                                 /label= Trp, Ser,
/note= "wild-type
                                                                                                                                                                                                                                                                                                                                                                                                                                              /label= Trp, Ser,
/note= "wild-type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /label= Ala, Val,
/note= "wild-type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note= "wild-type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ′label=
peptide;
                                                                                                                                                                                                                                                                                                                  J.
                                                                                                     100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Trp, Ser,
"wild-type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Arg, Cys,
or His
                                                                                           0;
                                                                                                   Score 84;
Pred. No.
                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Thr, Ala, Met, Cys
channel residue is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cys,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Asp,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ser, Thr, Ala, Met
channel residue is
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                                                                                                                                                                                                                                                                                                                                                                                                                                               Thr, Ala, Met, (channel residue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        channel residue is Glu"
                                                                                                                                                                                                                                                                                                                                                                                                                   channel residue is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            channel residue is Gly"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ser or Thr
                                                                                                                                                                                                                                                                                                                                                                                                                            Ala,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Asp, Gln, Asn, Ser,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gln,
                                                                                                    DB 14;
0.00014;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Asn,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gln, Asn, Ser,
                                                                                                                                                                                                                                                                                                                                                                                                                            Cys or Tyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Met, Cys,
                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cys, Phe
ie is Leu"
                                                                                                              Length 156;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ser,
                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           or Cys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            or Phe
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           or
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Glu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             His
                                                                                           0;
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                                                                                           Gaps
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Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TNF-alpha; tumor necrosis factor-alpha; tip sepsis; inflammation; cytokine; metastasis;
                                                                                                                                                                                                                                                                                                                                                                                    /note= '
Misc-difference 110..111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Misc-difference 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Misc-difference 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mutagenesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAR60244;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus sp
TNF-alpha muteins were constructed in the tip region (given AAR60331) of mouse TNF-alpha. The mutations resulted in: modulation of lectin-like activity; reduced toxic activity; modulation of inflammatory activity; modulated adhesion molu
                                                                               New tumour necrosis factor -alpha muteins, antibodies and antisense peptide(s) - used in the treatment of diseases and conditions associated with the in vivo activities of TNF-A eg
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Misc-difference 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Misc-difference 102
                                                   Disclosure; Page 10; 132pp; English.
                                                                                                                         WPI; 1994-279746/34.
                                                                                                                                          De Baetselier P,
                                                                                                                                                              (INNO-) INNOGENETICS NV SA.
                                                                                                                                                                                   03-FEB-1993;
                                                                                                                                                                                                       02-FEB-1994;
                                                                                                                                                                                                                          18-AUG-1994
                                                                                                                                                                                                                                             WO9418325-A
                                                                                                                                                                                                                                                                                     Misc-difference 114..115
                                                                                                                                                                                                                                                                                                                   Misc-difference
                                                                                                                                                                                                                                                                                                                                       Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                           Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                              Misc-difference 107
                                                                      sepsis, inflammation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                 /note=
115
                                                                                                                                                                                   93EP-0400262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note=
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                                                                                                                                                                                                                                                                                                                                                                                                           /note=
109
                                                                                                                                                                                                                                                                                                                                       114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note=
                                                                                                                                                                                                                                                                                               /note= "In TNF
Val"
                                                                                                                                                                                                                                                                                                                                                                              /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note=
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                                                                                                                                                                                                                                                                            /note=
                                                                                                                                           Fransen L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "in TNF muteins, residues 1-8 are replaced
by a peptide within the region spanning
aa 5-30 of laminin"
                                                                                                                                                                                                                                                                                                                                                                                                "In TNF muteins,
                                                                                                                                                                                                                                                                                                                                                                                                                                       "in TNF muteins, residue 105 is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "in TNF muteins, residue 101 is Arg or deleted"
                                                                                                                                                                                                                                                                            "In TNF muteins, residues 114-115
                                                                                                                                                                                                                                                                                                                            "In TNF muteins,
                                                                                                                                                                                                                                                                                                                                                                                                                    "In TNF muteins,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "in TNF muteins,
                                                                                                                                                                                                                                                                                                                                                                               "In TNF muteins,
                                                                                                                                                                                                                                                                                                                                             'In TNF muteins, residues 110-111 are deleted, or residue 110 is deleted or Met, or residue 110 is deleted and residue 108 is Gln and residue 119 is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     압
                                                                                                                                                                                                                                                                Ile-Lys"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     residue 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TNF muteins,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TNF muteins,
                                                                      etc
                                                                                                                                            Lucas
                                                                                                                                                                                                                                                                                                         muteins,
                                                                                                                                            Ŗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     is Ile and residue 44 is C
                                                                                                                                                                                                                                                                                                                                                                                                                                       residue 105 is
Ser and residue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    residue 102
                                                                                                                                                                                                                                                                                                        residue 115
                                                                                                                                                                                                                                                                                                                                                                                                residue 109 is Lys"
                                                                                                                                                                                                                                                                                                                                                                                                                    residue 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     residue 100 is
                                                                                                                                                                                                                                                                                                                             residue 114 is Ile or Cys"
                                                                                                                                            Sablon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                peptide; mutein; cancer;
lectin; adhesion;
  adhesion molecule
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                                                                                                                                                                                                                                                                                                                                                                                                                    is Phe"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     is
                                                                                                                                                                                                                                                                                                          is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ser"
                                                                                                                                                                                                                                                                                                         Lys,
                                                                                                                                                                                                                                                                                                                                                                                                                                         130
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ser,
                                                                                                                                                                                                                                                                                                                                                                                                                                         is
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                               'n
                                                                                                                                                                                                                                                                                                                                                His"
                                                                                                                                                                                                                                                                                                                                                                                                                                         Cys"
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RESULT 14
AAR38077
ID AAR38
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                                                                                     Query Match
Best Local S
Matches 14
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AAP60527
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Best Local (
AAR38077 standard;
                                                                                                                                   TNF-like polypeptides and compsns. are produced by the fermentation of host cells transformed with at least one DNA sequence which codes for a mammalian TNF-like polypeptide operatively linked to an expression control sequence in the transformed host.
                                                                                                                                                                                                                                                                                               (BIOJ ) BIOGEN NV.
(FIER/) FIERS W C.
(ALLE/) ALLET B.
(BIOG-) BIOGEN INC.
                                                                                                                            Sequence
                                                                                                                                                                                       Claim 12; Page 67; 93pp; English.
                                                                                                                                                                                                     Mammalian tumour necrosis factors - produced by culturing pro-karyotic hosts transformed with recombinant DNA
                                                                                                                                                                                                                                                                                                                                              09-OCT-1985;
21-DEC-1984;
09-OCT-1986;
                                                    102
                                                                                                                                                                                                                                          N-PSDB; AAN60439
                                                                                                                                                                                                                                                 WPI; 1986-182891/28.
                                                                                                                                                                                                                                                                  Fiers WC, Fransen LM,
VanDerHeyden J, Allet
                                                                                                                                                                                                                                                                                                                                                                                   19-DEC-1985;
                                                                                                                                                                                                                                                                                                                                                                                                     03-JUL-1986
                                                                                                                                                                                                                                                                                                                                                                                                                        WO8603751-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence of tumour necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                         Anticancer agent;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-AUG-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAP60527;
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                                                                 3 PKDTPEGAELKPWY 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       inducing capacity; r increased half-life.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3 PKDTPEGAELKPWY 16
                                                 PKDTPEGAELKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PKDTPEGAELKPWY 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               also
                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  standard;
                                                                                                                            157 AA;
                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             produced.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           156 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first
                                                                                                                                                                                                                                                                                                                                            85US-0785847.
84US-0684595.
86WO-USO2133.
                                                                                                                                                                                                                                                                                                                                                                                 85WO-EP00721
protein; 157 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                  antitumour; antimalarial; tumour necrosis factor
                                                                                              77.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              reduced metastasis promoting activity; and/or e. Muteins of the human TNF (given in AAR60243)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  77.00
100.08; Pi
0;
                                                                                                                                                                                                                                                                    В,
                                                                                                                                                                                                                                                                  Tavernier JHL,
3, Washima EH;
                                                                                              .0%;
                                                                                    0;
                                                                                           Score 84;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  157
                                                                                                                                                                                                                                                                                                                                                                                                                                                       factor (TNF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 84; Pred. No.
                                                                                 Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                          DB 7; Le
0.00014;
                                                                                                                                                                                                                                                                         Marmenout ALM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 15;
0.00014;
                                                                                                   Length 157;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 156;
                                                                                Indels
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                                                                                                                                                       which codes
                                                                              0
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                                                                             Gaps
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X P X X X E
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RESULT 15
AAP70558
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Best Local Similarity
Matches 14; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PΝ
Tumor necrosis
                         26-FEB-1991
                                                   AAP70558;
                                                                      AAP70558 standard;
                                                                                                                                                                                                                                                    Drugs acting on withdrawal symptoms contain TNF, esp. TNF-alpha (AAR38069 and AAR38077), rTNF-S-AM1 (AAR38070), rTNF-S-AM2 (AAR38071), thymosin-beta4-TNF fused cpd. (AAR38072-76). The drugs are effective in treatment of withdrawal symptoms caused by habitual use of alcohol, morphine narcotics or nicotine in humans administered as TNF at a dose of 10ng-10mg orally or 5ng-1mg i.v. or 50ng-50mg percutaneously a day for a human adult. In animals, the drugs may be administered as administered as the drugs may be administered according to the human dosage (1/60 per kg body wt.).
                                                                                                                                   102 PKDTPEGAELKPWY 115
                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page 2-3; 5pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                            Drugs for treating alcohol, morphine narcotics or nicotine withdrawal symptoms - contg. tumour necrosis factor-alpha, thymosin tumour necrosis factor fused cpd. or murine tumour necrosis factor-alpha prepd, from macrophage of human or animal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1993-191442/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (MIZU/) MIZUNO D.
(SOMA/) SOMA G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-OCT-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-OCT-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-MAY-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JP05117161-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Withdrawal symptom; tumour necrosis factor; narcotic; morphine; thymosin; alcohol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Non-human TNF-alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-OCT-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAR38077;
                                                                                                                                                           3 PKDTPEGAELKPWY 16
                                                                                                                                                                                                                                      157 AA;
                                                                                                                                                                                     Conservative
                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               91JP-0337489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      91JP-0337489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note= "residue not labelled in
                                                                      protein;
                                                                                                                                                                               100.08; **
                                                                                                                                                                               Score 84; DB b; Pred. No. 0.0 0: Mismatches
                                                                      170
                                                                     AA
                                                                                                                                                                                          DB 14;
0.00014;
                                                                                                                                                                                                   Length 157;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         specification"
                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nicotine,
                                                                                                                                                                           0
                                                                                                                                                                           Gaps
```

JP62135493-A.

TNF; antitumor

06-DEC-1985;

85JP-0275392.

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XX
XX
PA (TANA ) TANABE SEIYAKU KK.
XX
PA (TANA ) TANABE SEIYAKU KK.
XX
XX
XX
WPI; 1987-209318/30.
DR W-PSDB; AAN70891.
XX
Anticancer factor - expressed by specified amino acid sequence.
YX
XX
XX
Disclosure; Page 12; 12pp; Japanese.
XX
XX
XX
XX
CC The sequence encodes tumor necrosis factor which is an antitumor
CC agent and a lymphokine. This sequence is the same as that in
CC AAP70557 but has 16 extra amino acids at the N-terminal.
XX
XX
XX
XX
XX
Sequence 170 AA;
Query Match
Best Local Similarity 100.0%; Pred. No. 0.00015;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY
3 PKDTPEGAELKPWY 16
Db 115 PKDTPEGAELKPWY 128
Search completed: April 4, 2003, 08:39:55
Job time: 31.5323 secs
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Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OM protein -
               Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                               46
                                                                                                                                                                                                                                                                                                                   48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   seq length: 0 seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query
Match
        \begin{array}{c} 777.8 \\ 771.3 \\ 660.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\ 260.2 \\
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Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            283224 seqs, 96134422 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                April 4, 2003, 08:37:36; Search time 12.3387 Seconds (without alignments) 132.452 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CGPKDTPEGAELKPWYC 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-779-703-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PIR_73:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
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pir2:*
pir3:*
pir4:*
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           DΒ
                                                                                           JH0529
JQ1344
AH0060
T36649
S0619373
C69373
C786822
VHWVEE
VHWVEE
VHWVEE
VHWVEE
S26373
S72350
B84748
F75440
                             S75950
T48783
S52984
                                                                                                                                                                                                                                                                                                                                                                                                                                            QWHUN
S22052
S11688
S52715
S24642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               283224
                                                                                   hypothetical prote structural polypro structural polypro structural polypro seructural polyprofein structural polypro structural polypro structural polypro hypothetical prote similar to Mio pro methylmalonyl-COA
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                                                                                                                                                                                                                                                                                 probable transposa
tumor necrosis fac
immunogenic protei
hypothetical prote
catechol oxidase (
                                        hypothetical prote related to SGT1 pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Description
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4.5	44	3	42	41	40	39	38	37	36	35	34	ű	32	<u>ω</u>	30
43	43	43	43	43	43.5	43.5	43.5	44	44	44	44	44.5	45	45	45
39.8	39.8	39.8	39.8	39.8	40.3	40.3	40.3	40.7	40.7	40.7	40.7	41.2	41.7	41.7	41.7
748	269	259	237	142	733	3.22	275	649	557	494	198	747	759	713	713
щ	2	<u> </u>	2	N	N	N	N	N	N	ν	Ν	N	N	N	2
S08680	AF1737	B42379	T25152	A47169	F82965	C70344	AH0335	T46500	н96590	AD3255	I46002	T23607	T11631	AB2997	G98286
methylmalonyl-CoA	amino acid ABC tra	his/5/-nucleosyly-	hynothetical prote	membrane-bound mul	hypothetical prote	hypothetical proto	nrohable penicilli	hypothetical prote	hynothetical prote	l-sorbose dehudrog	CARP heta chain -	hypothetical proto	Na+/H+-eychanging	methylmalonyl con	methylmalonyl

ALIGNMENTS

A: Molecule type: mRNA A: Residues: 1-235 < FRA> A: Cross-references: GB: X02611; NID: g54844; PIDN: CAA26457.1; PID: g54845 A: Cross-references: GB: X02611; NID: g54844; PIDN: CAA26457.1; PID: g54845 A: Cross-references: GB: X02611; NID: g54844; PIDN: CAA26457.1; PID: g54845 A: Cross-references: GB: X02611; NID: g54844; PIDN: CAA26457.1; PID: g54845 A: Reference number: A34251; MUID: 89380231; PMID: 2777790	A;Residues: 1-235 CPENS A;Residues: 1-235 CPENS A;Cross-references: GB:M11731; NID:g202084; PIDN:AAA40458.1; PID:g202085 R;Fransen, L.; Muller, R.; Marmenout, A.; Tavernier, J.; van der Heyden, J.; Kawash Nucleic Acids Res. 13, 4417-4429, 1985 A;Fitle: Molecular cloning of mouse tumour necrosis factor cDNA and its eukaryotic A;Reference number: A23127; MUID:85242112; PMID:2989794 A;Accession: A23127	A; Residues: 1-235 (SEM) A; Cross-references: GB:Y00467; NID:g54830; PIDN:CAA68530.1; PID:g54832 R; Pennica, D.; Hayflick, J.S.; Bringman, T.S.; Palladino, M.A.; Goeddel, D.V. Proc. Natl. Acad. Sci. U.S.A. 82, 6060-6064, 1985 A; Title: Cloning and expression in Escherichia coli of the cDNA for murine tumor ne A; Reference number: A25164; MUID:85298296; PMID:3898078 A; Accession: A25164	A;Residues: 1-235 <sha> A;Cross-references: GB:M38296; NID:g202086; PIDN:AAA40459.1; PID:g202087 A;Note: article in Russian with English abstract R;Semon, D.; Kawashima, E.; Jongeneel, C.V.; Shakhov, A.N.; Nedospasov, S.A. Nucleic Acids Res. 15, 9083-9084, 1987 A;Title: Nucleotide sequence of the murine TNF locus, including the TNF-alpha-(tumc A;Reference number: A93679; MUID:88067722; PMID:3684584 A;Molecule type: DNA A;Molecule type: DNA</sha>	A; Molecule type: DNA A; Residues: 1-235 <shi> A; Cross-references: GB: M20155 R; Shakhov, A.N.; Nedospasov, S.A. Bloorg. Khim. 13, 701-705, 1987 A; Title: Molecular cloning of the genes coding for tumor necrosis factors: complet(A; Reference number: S03791; MUID:87298639; PMID:3040015 A; Accession: S03791 A; Molecule type: DNA</shi>	RESULT 1 OWNISN OWNISN CHARGE CHAR
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A:Molecule type: mRNA
A:Residues: 1-230, 'R', 232-235 <RES>
A:Residues: 1-230, 'R', 232-235 <RES>
A:Cross-references: GE:Md3049; NID:g202082; PIDN:AAA40457.1; PID:g202083
A:Cross-references: GE:Md3049; NID:g202082; PIDN:AAA40457.1; PID:g202083
A:Cross-references: GE:Md3049; NID:g202082; PIDN:AAA40457.1; PID:g202083
A:Commun. 173, 1072-1078, 1990
A:Title: Characterization of high molecular weight glycosylated forms of A; Reference number: A36696; MUID:91097531; PMID:2268312
A; Accession: A36696
A; Molecule type: protein
A; Residues: 80-85,'X',87-99 <SHE>
C; Genetics: 67.7.81/1.07/1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Note: the first intron occurs in the 5'-untranslated region C;Superfamily: tumor necrosis factor C;Superfamily: tumor necrosis factor c;Keywords: cytokine; cytotoxin; djycoprotein; lipoprotein; lymphokine; macrophage; meml F;80-235/Product: tumor necrosis factor #status experimental <MAT> F;20/Binding site: myristate (Lys) (covalent) #status predicted F;84/Binding site: carbohydrate (Ser) (covalent) #status predicted F;86/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                  A;Residues: 1-38,'P',40-162,'T',164-201,'S',203-235 <EST>
A;Cross-references: GB:X66539; GB:S40199; NID:g395369; PIDN:CAA47146.1; PID:g395370
C:Comment: Tumor necrosis factor is secreted by macrophages in response to endotoxin
                                                                                                                                                                                                                                                                                               A; Molecule type: DNA
A; Molecule type: DNA
A; Residues: 1-235 < KWO>
A; Residues: 1-235 < KWO>
A; Cross-references: GB:L00981; NID:g205253; PIDN:AAA16275.1; PID:g205254
A; Cross-references: GB:L00981; NID:g205253; PIDN:AAA16275.1; PID:g205254
B; Estler, H.C.; Grewe, M.; Gaussling, R.; Pavlovic, M.; Decker, K.
Biol. Chem. Hoppe-Seyler 373, 271-281, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gene 132, 227-236, 1993
A;Title: Cloning and sequence
A;Reference number: JN0868; MU
A;Accession: JN0868
                                        C; Genetics:
                                                                                                                                            A; Molecule type: mRNA
A; Residues: 1-38, 'P',
                                                                                                                                                                                                        A; Reference number: S21674; A; Accession: S21674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R; Kwon,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: DNA
A; Residues: 1-235 <SHI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Title: Cloning and expression in Escherichia coli of the gene A; Reference number: JU0029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R;Shirai, T.; Shim
Agric Biol Chem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N;Alternate names: cachectin; INF alpha
C;Species: Rattus norvegicus (Norway rat)
C;Date: 07-Jun-1990 #sequence_revision 07-Jun-1990 #text_change 04-Feb-2000
C;Accession: JU0029; JN0868; S21674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
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A;Title: Identification of a common nucleotide sequence in the 3'-untranslated A; Reference number: I59058; MUID:86149365; PMID:2419912
A;Accession: I59058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Accession: JU0029
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Introns: 62/3; 81/1; 97/1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A:Accession: A34251
A:Molecule type: protein
A:Residues: 70-87 <CSE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           tumor necrosis factor alpha precursor - rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180 PKDTPEGAELKPWY 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   J.; Chung, I.Y.;
12, 227-236, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
TNF-alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3 PKDTPEGAELKPWY
                                                                                                                                                                                                                                                                       Rat tumor necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Shimizu, N.; Horiguchi, S.; Ito, Chem. 53, 1733-1736, 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Benveniste, E.N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     77.8%; Score 84; 100.0%; Pred. No.
                                                                                                                                                                                                                                      factor-alpha. Transcription in MUID:92329007; PMID:1627266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MUID: 94040766;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the rat tumor necrosis factor encoding genes. PMID:8224868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 1; L
. 2.4e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ξ
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A;Cross-references: EMBL:X54001; NID:g2135; PIDN:CAA37949.1; PID:g2136 R;Kuhnert, P.; Wuethrich, C.; Peterhans, E.; Pauli, U. Gene 102, 171-178, 1991
A;Title: The porcine tumor necrosis factor-encoding genes: sequence and A;Reference number: S17289; MUID:91340150; PMID:1874444
A;Accession: S17290
A;Cross-references: EMBL:x54859; NID:g2132; PIDN:CAA38639.1; A;Note: the authors translated the codon GAG for residue 202 R;Chol, C.S.; Molitor, T.W.; Lin, G.F.; Murtaugh, M.P.
                                                                              A; Molecule type: DNA
A; Residues: 1-232 <KUH>
                                                                                                                                                                                                                                                                                                                                                                 A; Title: Gene sequence of A; Reference number: S1260
                                                                                                                                                                                                                                                                                                                                                                                                                      R;Drews, R.T.; Coffee, B.W.; Prestwood, Nucleic Acids Res. 18, 5564, 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     tumor necrosis factor alpha precursor - pig
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 04-Feb-2000
C;Accession: S12606; S17290; S18965; I46659
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Superfamily: tumor necrosis factor C;Keywords: glycoprotein; lipoprotein; myristylation E;19,20/Binding site: myristate (Lys) (covalent) #st
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A; Residues: 1-232 < DRE>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C; Accession: I54490
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: DNA
A; Residues: 1-235 < RES>
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les 12; Conserv
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85.7%;
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6; MUID:91016861; PMID:2216741
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Pred. No.
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                                                 PID:g2134
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A;Cross-references: GB:X02910; GB:X02159; NID:g37209; PIDN:CAA26669.1; PID:g37210 A;Note: this protein was isolated from the monocyte-like cell line HL-60 from a purishing A.M.; Creasey, A.A.; Ladner, M.B.; Lin, L.S.; Strickler, J.; Van Arsdell,
A;Title: Molecular cloning of the complementary DNA for human A;Reference number: A44189; MUID:85142190; PMID:3856324
                                                                                                                                                                      A; Residues: 1-233 < PEN>
                                                                                                                                                                                          A; Molecule type: mRNA
                                                                                                                                                                                                              A;Title: Human tumour necrosis factor: precursor structure, expression and A;Reference number: A93351; MUID:85086244; PMID:6392892
                                                                                                                                                                                                                                                                            A;Cross-references: EMBL:215026; NID:g37211; PIDN:CAA78745.1; PID:g37212
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, August 1992
R;Pennica, D.; Nedwin, G.E.; Hayflick, J.S.; Seeburg, P.H.; Derynck, R.; Palladino,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: DNA
A; Residues: 1-233 < NED>
A; Cross-references: GB:X02910; GB:X02159;
R; Iris, F.J.M.; Bougueleret, L.; Prieur, S
Nature Genet. 3, 137-145, 1993
                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: DNA
A; Residues: 1-233 <II
                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Title: Dense Alu clustering and a potential new member A;Reference number: S36152; MUID:93272029; PMID:8499947 A;Accession: S36153
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C;Keywords: cytokine; cytotoxin; glycoprotein; lipoprotein; lymphokine; macrophage; myrif;1-77/Domain: propeptide #status predicted cPRO>
F;18-232/Product: tumor necrosis factor alpha #status predicted <MAT>
F;19,20/Binding site: myristate (Lys) (covalent) #status predicted
F;81/Binding site: carbohydrate (Ser) (covalent) #status predicted
F;81/Binding site: carbohydrate (Ser) (covalent) #status predicted
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A;Description: Comple
A;Reference number: (
A;Accession: S18965
                                                                                                                                                                                                                                                                                                                                                                                                             Status: nucleic acid sequence not shown; translation not shown
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Introns: 62/3;
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A; Residues: 44-232 <PAU>
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                                                                                                                                                                                                                                                                                                                                                                                    1-233 <IRI>
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10; Conservative
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Omplete nucleotide sequence of a
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76.9%;
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Pred. No. 0.019;
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S.; Caterina, D.; Primas, G.;
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                   tumor necrosis factor
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Perrot, V.;
                                                                                                                                                                                                                                  homology
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                                                                                         promyel
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                                                         QΥ
         179
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C;Superfamily: tumor necrosis factor C;Reywords: cytokine; cytotoxin; glycoprotein; homotrimer; lipoprotein; lymphokine; F;17-76/Domain: propeptide #status predicted cytocoxin; glycoprotein; homotrimer; lipoprotein; lymphokine; F;77-233/Product: tumor necrosis factor #status experimental <mary F;819,20/Binding site: myristate (Lys) (covalent) #status experimental F;81/Binding site: carbohydrate (Ser) (covalent) (partial) #status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Comment: Secreted from mitogen-activated macrophages within 4-24 hours after out detriment to normal cells. It can also act synergistically with interferon C;Comment: TNF-alpha and .beta (lymphotoxin) are the products of different gene ut are produced by different cell types and have different induction kinetics.
                                                                                                                                                                                                                                                                                                                                               A:Cross-references: GDB:120441,
A:Map position: 6p21.3-6p21.3
A:Introns: 62/3, 78/1; 94/1
                                                                                                                                                                                                                                                                                                                                  C; Complex: homotrimer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Contents: annotation; identification of myristylated lysines R;Aggarwal, B.B.; Kohr, W.J.; Hass, P.E.; MOffat, B.; Spencer, S. Hills: Human tumor necrosis factor. Production, purification, A;Reference number: A92511; MUID:85139974; PMID:3871770
                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Gene: GDB: TNF; TNFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references: GB:S68530; NID:g544751
R;Stevenson, F.T.; Bursten, S.L.; Locksley, R.M.; Lovett, D.H.
J. Exp. Med. 176, 1053-1062, 1992
A;Title: Myristyl acylation of the tumor necrosis factor alpha
A;Reference number: A59163; MUID:93018820; PMID:1402651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R;D Alfonso, S.; Richiardi, P.M.
Immunogenetics 39, 150-134, 1994
A;Title: A polymorphic variation in a putative regulation box of the TNFA promoter r
A;Reference number: I54522; MUID:94102809; PMID:7903959
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A; Residues: 1-8 < DAL>
                                                       Matches
                                                                              Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  K; Marmenout, A.; Fransen, L.; Tavernier, J.; Van Der Heyden, J.; Parer Heyden, J.; Van Der Heyden, J.; A; Title: Molecular cloning and expression of human tumor necrosis A; Reference number: IS3311; MUID:86030296; PMID:3932069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: DNA
A; Residues: 1-233 <MAR>
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A;Molecule type: mRNA
A;Residues: 1-62,'S',64-233 <WANN
  4 KDTPEGAELKPWY
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                                                                         Similarity
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83-102:109-119;121-128,'x',130-131;142-144,'X',146,'XXX',150-152;159-17
. A.; Fransen, L.; Tavernier, J.; Van Der Heyden, J.; Tizard, R.; Kawash
                                               Conservative
16
                                                                      60.2%;
                                                                                         Score
                                                                 Pred.
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                                  Mismatches
                                                              No.;
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                                                              DB 1;
0.019;
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                                                                                 Length
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tumor necrosis factor alpha precursor - bovine (fragment) C;Species: Bos prinigenius taurus (cattle) C;Date: 19-May-1995 #sequence_revision 21-Jul-1995 #text_C;Accession: S52715 R;Mertens, B; Gaidulis, L.
                                                                                                                                                                                                                                                                                                                                                                                                              A;Introns: 62/3; 78/1; 94/1
C;Superfamily: tumor necrosis factor
C;Superfamily: tumor necrosis factor
C;Keywords: glycoprotein; lipoprotein; myristylation; transmembrane
F;19,20/Binding site: myristate (Lys) (covalent) #status predicted
F;81/Binding site: carbohydrate (Ser) (covalent) #status predicted
F;145-177/Disulfide bonds: #status predicted
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A;Title: Gene sequence of feline tumor necrosis factor alpha.
A;Reference number: S11688; MUID:91016860; PMID:2216740
A;Accession: S11688
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C;Genetics:
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C;Species: Felis silvestris catus (domestic cat)
C;Date: 21-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 04-Feb-2000
C;Accession: S11688
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C;Keywords: glycoprotein; lipoprotein; myristylation; transmembrane
F;19,20/Binding site: myristate (Lys) (covalent) #status predicted
F;81/Binding site: carbohydrate (Ser) (covalent) #status predicted
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C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 04-Feb-2000
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A; Residues: 1-233 <SAN>
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A; Accession: S22052
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  Data Library,
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76.9%;
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March 1995
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C;Species: Bos primigenius taurus (cattle)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999
C;Accession: 146047; S24642
R;Cludts, I.; Cleuter, Y.; Kettmann, R.; Burny, A.;
Cytokine 5, 336-341, 1993
A;Title: Cloning and characterization of the tander
A;Title: Cloning and characterization of the tander
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Introns: 62/3; 78/1; 94/1
C;Superfamily: tumor necrosis factor
C;Superfamily: tumor necrosis factor
C;Keywords: 9lycoprotein; lipoprotein; myristylation; transmembrane
F;20/Binding site: myristate (Lys) (covalent) #status predicted
F;81/Binding site: carbohydrate (Ser) (covalent) #status predicted
F;145-177/Disulfide bonds: #status predicted
A; Experimental source: alveolar macrophage R; Nash, A.D.; Barcham, G.J.; Brandon, M.R.; Immunol. Cell Biol. 69, 273-283, 1991
                                                                                                                                       R;Green, I.R.; Sargan, D.R. Gene 109, 203-210, 1991
A;Title: Sequence of the cDNA encoding ovine tumor necrosis A;Reference number: JH0529; MUID:92112044; PMID:1765267
A;Accession: JH0529
                                                                                                                                                                                                                                                   tumor necrosis factor alpha precursor sheep N;Alternate names: cachectin; TNF alpha C;Species: Ovis orientalis aries, Ovis ammon aries C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 C;Accession; JH6529; S48118; S13114; S20661
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                                                                  A;Cross-references: EMBL:X55152; NID:g1405;
                                                                                                A; Molecule type: mRNA
A; Residues: 1-234 <GRE>
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Thes 9; Conserv
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A; Molecule type: mRNA
A; Residues: 1-185 <MER>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Description: Cloning and A; Reference number: S52715 A; Accession: S52715
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            191
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69.2%;
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MUID:94083525;
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                                                                  PIDN:CAA38952.1;
                       Andrews, A.E.
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                                                                                                                                                                                                                                                                          (domestic sheep)
#text_change 04-Feb-2000
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Molecular cloning, expression

and characterization

of ovine TNF-alpha

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AH0060
bis(5'-nucleosyl)-tetraphosphatase
C:Species: Yersinia pestis
                                                                                       RESULT 12
                                                                                                                                                         В
                                                                                                                                                                                              ΩV
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C;Superfamily: tumor necrosis factor
C;Keywords: cytokine; cytotoxin; glycoprotein; lipoprotein; lymphokine;
E;78-234/Product: tumor necrosis factor alpha #status predicted <TUM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R;Su, X.; Morris, D.D.; McGraw, R.A. Gene 107, 319-321, 1991
Gene 107, 319-321, 1991
A;Title: Cloning and characterization of gene TNF alpha encoding equine tumor necrosis A;Reference number: JQ1344; MUID:92084125; PMID:1748301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Superfamily: tumor necrosis factor C;Reywords: alternative splicing; cytokine; cytotoxin; glycoprotein; lipoprotein; lymphc F;177/Domain: propeptide #status predicted <PRO> F;78-234/Product: tumor necrosis factor alpha #status predicted <TUM> F:20/Binding site: myristate (Lys) (covalent) #status predicted F;82/Binding site: carbohydrate (Ser) (covalent) #status predicted F;82/Binding site: carbohydrate (Asn) (covalent) #status predicted F;96/Binding site: carbohydrate (Asn) (covalent) #status predicted
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A; Accession: S48118
A; Status: preliminary
A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                  F;146-178/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: GB:M64087; NID:g164244; PIDN:AAA30959.1; C;Comment: This protein is an important proximal mediator of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: DNA
A; Residues: 1-234 <SUX>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C:Species: Equus caballus (domestic horse)
C:Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 04-Feb-2000
C:Accession: JQ1344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Gene: TNF-alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Genetics
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A;Molecule type: mRNA
A;Molecule type: mRNA
A;Mesidues: 1-62,64-234 <YOU>
A;Cross-references: EMBL:X55966; NID:g1403; PIDN:CAA39437.1; PID:g1404
A;Note: Comparison with the introns of homologous sequences suggest that this is probabl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Accession: JQ1344
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R; Young, A.J.; Hay, J.B.; Ch
Nucleic Acids Res. 18, 6723,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Residues: 1-234 <NAS>
A;Cross-references: EMBL:X56756; NID:g297806; PIDN:CAA40076.1; PID:g297807
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Best Local (
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8; Conserv
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9; Conserv
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                                                                                                                                                                                                                                                       47.2%;
66.7%;
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Pred. No. 2
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                                     (symmetrical)
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2.7;
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0.66;
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                              3.6.1.41) [imported] -
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endotoxemia
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                            Yersinia
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      A; Reference number: A; Accession: S41867
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tumor necrosis factor alpha precursor - goat (fragment) %;Alternate names: cachectin; TNF alpha C;Species: Capra aegagrus hircus (domestic goat) C;Date: 28-Feb-1990 #sequence_revision 28-Feb-1990 #tex C;Accession: S06192; S41867
R;Goldstein, I.M.; Henner, D.; Talhouk, A.
                                               A;Molecule type: mRNA
A;Restidues: 1-193 <GOL>
A;CrOSS-references: EMBL:X14828; NID:g992; PIDN:CAA32937.
                                                                                                                                                                                                                                                                                                                          RESULT 14
S06192
A; Reference number: S41867
                                           R; Rimstad,
                                                                                                                             A; Reference number: S06192
A; Accession: S06192
                                                                                                                                                              R;Goldstein, I.M.; Henner, D.; Talhouk, A. submitted to the EMBL Data Library, March 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Experimental source: strain C; Genetics: A; Gene: SCOEDB: SCH35.10 C; Superfamily: hypothetical pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            probable transposase - Streptomyces coelicolor C;Species: Streptomyces coelicolor C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references: EMBL:AL078610; PIDN:CAB44417.1; GSPDB:GN00070; SCOEDB:SCH35.10
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A; Residues: 1-407 <OLI>
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A; Accession: T36649
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C;Keywords: hydrolase
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A; Residues: 1-289 < KUR>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R;Parkhill, J.; Wren, B.W.; Thomson, N.R.; Titball, R.W.; Holden, M.T.G.; Prentice deno-Tarraga, A.M.; Chillingworth, T.; Cronin, A.; Davies, R.M.; Davis, P.; Dougan ll, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.; Whitehead, S.; Bar Nature 413, 523-527, 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Gene:
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nes 7, Conserv
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Glodek, A.; Zhou, L.; Overbeek, R.; Gocayne, J.D.; Weldman, J.F.; McDonald, L. Rirkness, E.F. Nature 390, 364-370, 1997
A;Authors: Utterback, T.; Cotton, M.D.; Spriggs, T.; Artiach, P.; Kaine, B.P.; Sykes, Smith, H.O.; Woese, C.R.; Venter, J.C.
A;Title: The complete genome sequence of the hyperthermophilic, sulfate-reducing archaed A; Reference number: A69250; MUID:98049343; PMID:9389475
A;Accession: D69373
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A;Molecule type: mRNA

Search completed: April 4, 2003, 08:42:59
Job time: 13.3387 secs
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A;Cross-references: GB:AE001036; GB:AE000782; NID:g2689359; PIDN:AAB90255.1; PID:g264961C;Superfamily: immunogenic protein BCSF31
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C;Species: Archaeoglobus fulgidus
C;Spete: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 17-Mar-2000
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Best Local Similarity 69.2%;
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GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
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OM protein - protein search, using sw model

Run on: April 4, 2003, 08:36:51; Search time 6.85484 Seconds (without alignments) 102.861 Million cell updates/sec

Title: Perfect score: Sequence: US-09-779-703-5 108

1 CGPKDTPEGAELKPWYC 17

Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5

112892 seqs, 41476328 residues

Searched:

Total number of hits satisfying chosen parameters: 112892

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : SwissProt_40:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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ALIGNMENTS

RP RX RT RT RT RT RL		RESUTINFA
SEQUENCE FROM N.A. MEDLINE=87298639; PubMed=3040015; Shakhov A.N., Nedospasov S.A.; "Molecular cloning of genes coding for tumor necrosis factor. complete nucleotide sequence of the genome copy of TNF-alpha in mice."; Bioorg. Khim. 13:701-705(1987).	r (TNH) r (TNH) r (TNH) cache	_MOUSE STANDARD; TNFA_MOUSE STANDARD; P06804; Q62326; O35853; O1-JAN-1988 (Rel. 06, Creat O1-MAR-1989 (Rel. 10, Last

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"The structure of mouse tumour-necrosis factor at 1.4 A resolution towards modulation of its selectivity and trimerization.";
Acta Crystallogr. D 55:772-778(1999)
-i- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kriegler M., Perez X., Defay K., Albert "A novel form of TNF/cachectin is a cell transmembrane protein: ramifications for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.

SEQUENCE FROM N.A., Abbasi N., James R., Dickidle,
Rowen L., Qin S., Madan A., Abbasi N., James R., Dickidle,
Shaffer T., Ratcliffe A., Loretz C., Lasky S., Hood L.,
Shaffer T., Ratcliffe M., Loretz C., Lasky S., Hood L.,
"Sequence of the mouse major histocompatibility class II"
"Sequence of the mouse major histocompatibility class II"
                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE-99190964; PubMed-10089307;
Baeyens K.J., De Bondt H.L., Raeymaekers A., Fiers W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IDENTIFICATION OF MEMBRANE-BOUND MEDLINE-88165056; Pubmed-3349526;
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Sherry B., Juc D.-M., Zentella A., Cerami A.;
"Characterization of high molecular weight glycosylated
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STRAIN-CTS, and NOD;
MEDLINE-96013654; PubMed-7560085;
Makino S:, Yamato E.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    murine tumor necrosis factor.";
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"Identification of a new susceptibility l
diabetes mellitus by ancestral haplotype
J. Clin. Invest. 96:1936-1942(1995).
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                                                                                                                                        pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation.

SUBCHILULAR LOCATION: TYPE II MEMBRANE PROTEIN. ALSO EXISTS
                                               PROTEOLYTIC PROCESSING. PTM: The membrane form, but not the soluble form,
            membrane
                                                                                                                                   EXTRACELLULAR
                                phosphorylated on serine
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                                                                                                        THE SOLUBLE FORM DERIVES
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binding to
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  es. Dephosphorylation of the to soluble TNFRSF1A/TNFR1
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                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                           De Ranter C.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             III region.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  forms
                                                                                                     ВУ
                                                                                                                                                     EXISTS AS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sakamoto
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                           the
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TNF-alpha
(Ву
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Best Local
                                                                       CONFLICT
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                                                                                       VARIANT
VARIANT
                                                                                                                              DOMAIN
SITE
                                                               SEQUENCE
                                                                                                      CARBOHYD
                                                                                                                                                                                    Signal-anchor;
                                                                                                                                                                                             Cytokine;
180
                                                                                                                                                      TRANSMEN
                                                                                                                                                              DOMAIN
                                                                                                                                                                                                    PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                             PROSITE;
                                                                                                                                                                                                                      SMART; SM00207;
                                                                                                                                                                                                                            ProDom;
                                                                                                                                                                                                                                    PRINTS;
                                                                                                                                                                                                                                           InterPro; IPR000478
Pfam; PF00229; TNF;
                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the
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European Bioinformatics Institute. Tr
European Broinformatics Institutions as long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity).

DISEASE: CACHEXIA ACCOMPANIES A VARIETY OF CANCER AND INFECTION, AND IS CHARACTERIZED
                PKDTPEGAELKPWY
PKDTPEGAELKPWY
                                                                                                                                                                                                                                                        MGI:104798; Inf.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AND MALNUTRITION
                                                                                                                                                                                                                                                                           2TNF;
                                                                                                                                                                                                              M13049;
                                                                                                                                                                                                                                                                                                                                                                                                                                              M20155;
                                       Similarity
                                                                                                                                                                                                                                   PR01234; TNECROSISFCT
                                                                                                                                                                                          Cytotoxin; Transmembrane; Glycoprotein; Phosphorylation;
                                                                                                                                                                                                                                                   IPR000478;
                                                              231
235 AA;
                                                                                                                                                                                                                                                                        12-OCT-99
                               Conservative
                                                                              57
79
2
148
148
77
77
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A25164.
A27303.
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                                                                                                                                                     36
                                                                                                                                                                                                                                                                                                                                                                                                                                     AAA40462.1; ALT_SEQ.
AAA40458.1; -.
                                                                                                                                                                                                                                                                                                                                                                      BAA19512.1;
                                                                                                                                                                                                                                                                                                                                                                                              AAA18594.1;
                                                                                                                                                                                                                                                                                                                                                                                                                            AAA40457.1;
                                                                                                                                                                                                                                                                                                                                                                                                                      CAA26457.1;
                                                                                                                                                                            Polymorphism;
1 235
                                                                                                                                                                                                                           TNF_abc;
                                                                                                                                                                                                            TNF_1; 1.
                                                                              235
80
2
179
179
86
77
77
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25895
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193
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T -> A (IN STRAINS B
MISSING (IN REF. 8).
G -> R (IN REF. 3) AN
                               0,
                                      Score 84;
Pred. No.
                                                                                                                  EXTRACELLULAR (POTENTIAL)
CLEAVAGE (BY ADAM17) (BY CHOSPHORYLATION (BY CK1)
                                                                                                                                                  TUMOR NECROSIS FACTOR,
TUMOR NECROSIS FACTOR,
CYTOPLASMIC (POTENTIAL)
SIGNAL-ANCHOR (TYPE-II
                                                                                                                                                                                   3D-structure
                                                                                                                                             (POTENTIAL)
                                                             16DD2A9676D68C5D CRC64;
                               Mismatches
                           DB 1;
J. 6.4e-06;
O;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 There are no rest
                                                                         , 8)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Usage
                                                                    AND
                                           Length 235
                                                                                   BALB/C
BALB/C
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BY GENERAL
                             Indels
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                                                                                                                                                  MEMBRANE PROTEIN;
                                                                                                                                                                 SOLUBLE FORM
                                                                                                                                                                           MEMBRANE FORM
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                                                                                                                          SIMILARITY)
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                                                                                   C57BL/6).
                                                                                                                   SIMILARITY)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HEALTH
                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  in
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There are no restrictions ng as its content is in

EMBL

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A KIRISITS M.J., Vardimon D., Kunz H.W., Gill T.J. III;
Submitted (JUN-1993) to the EMBL/GenBank/DDBJ databases.
C -!- FUNCTION: Cytokine that binds to TNFRSFIA/TNFR1 and
TNFRSFIB/TNFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation.
C -!- SUBCELULIAR IOCATION: Type II membrane protein. Also exists as extracellular soluble form (By similarity).
C -!- PTM: The soluble form derives from the membrane form by
                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE-21369/11; rumnu ... Hashiramoto A., vouce... Furuya T., Joe B., Salstrom J.L., Hashiramoto A., vouce... Wilder R.L., Remmers E.F.; "Polymorphisms of the tumor necrosis factor alpha locus "Polymorphisms of the tumor necrosis factor alpha locus". Airpage susceptible and resistant inbred rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P16599;
01-AUG-1990 (Rel. 15, Created)
01-AUG-1990 (Rel. 15, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation updat
15-JUN-2002 (Rel. 41)
                                                                                                                                                                                                                                                                                                                                                                                                                               autoimmune disease susceptible Genes Immun. 2:229-232(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=92329007; PubMed=1627266;
Estler H.C., Grewe M., Gaussling R., Pavlovic M
"Rat tumor necrosis factor-alpha. Transcription
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Cloning and expression necrosis factor.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Cloning and sequence analysis of the factor-encoding genes.";
Gene 132:227-236(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ligand superfamily member 2) (Cachectin). TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=Various;
MEDLINE=21369712; PubMed=11477479;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Agric. Biol.
[3]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
                                                                                                                                                                                                                                                                                                                             rissuE-Tail;
                                                                                                                                                                                                                                                                                                                                                                     Submitted (OCT-1997)
                                                                                                                                                                                                                                                                                                                                                                                       Decker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Biol. Chem. Hoppe-Seyler
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Shirai
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kwon J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=94040766; Pubmed=8224868;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mammalia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TNFA_RAT
                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF 1-231 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN≖Sprague-Dawley;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=10116;
                       Similarity).
DISEASE: CACHEXTA ACCOMPANIES
CANCER AND INFECTION, AND IS C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                in vitro
                                                                      proteolytic processing (By similarity).

PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1
                                                                                                                                                                                                                                                                                                                                                                                      K.F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chung I.Y., Benveniste
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Shimizu N., Horiguchi S., It
nd expression in Escherichia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               posttranslational
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     53:1733-1736(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chordata;
                                                                                                                                                                                                                                                                                                                                                                       6
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                                                                                                                                                                                                                                                                                                                                                                       the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   373:271-281(1992)
                                                                                                                                                                                                                                                                                                                                                                       EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sciurognathi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          processing based
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         E. N. ;
                           S A VARIETY OF
CHARACTERIZED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ito
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rat tumor necrosis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Muridae; Murinae;
                           DISEASES, INCLU
BY GENERAL ILL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               on in
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a PCR-derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rat Kupffer cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene for rat tumor
                                                                                                                                                                                                                                                                                                                                                                                                                                               strains.";
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SIMILARITY: BELONGS TO THE

TUMOR

NECROSIS FACTOR FAMILY.

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THEALE THEALE THEALE AC P36939;
DT 01-JUN-1994
DT 01-JUN-1994
DT 15-JUN-2002
DE TUMOL RECTOS DE 1193AH SUPER GN TNFSF OR TNFSF OS PEROMYSCUS JOC ENKARYOTA; POC Mammalia; EL OC PEROMYSCUS OX NCBI_TAXID-1
                                                                                                                                                                                                       밁
                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                              Query Match
Best Local
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EMBL; AF329982; AAK53568.1; ---
EMBL; AF329984; AAK53569.1; ---
EMBL; AF329985; AAK53570.1; ---
EMBL; AF329985; AAK53571.1; ---
EMBL; AF329987; AAK53573.1; ---
EMBL; AF329987; AAK53573.1; ---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PIR; JU0029; JU0029.
PIR; S21674; S21674.
PIR; JN0868; JN0868.
HSSP; P06804; ZTNF.
                                                                                                                                                                                                                                                                                                           CONFLICT
                                                                                 01-JUN-1994 (Rel. 29, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis
                                                                                                                                                                                                                                                                                                                                                          MOD_RES
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                  SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
PRINTS; PR01234; TNECROSISFCT.
ProDom; PD002012; TNF_abc; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL;
                                                                                             01-JUN-1994 (Rel. 29,
01-JUN-1994 (Rel. 29,
15-JUN-2002 (Rel. 41,
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Signal-anchor.
1
  NCBI_TaxID=10041;
                         Mammalia; Eutheria;
                                   Peromyscus leucopus 
Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                   CONFLICT
                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                      TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cytokine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SMART; SM00207; TNF; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; X66539; CAA47146.1; -
EMBL; L00981; AAA16275.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                or send an email to license@isb-sib.ch).
                                                                                                                                                                                                       180
                                                                                                                                                                                                                            3 PKDTPEGAELKPWY
                                                                                                                                                                                                       PKDTPEGAELKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AF329987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AJ002278; CAA05290.1;
                                                           superfamily member 2) (Cachectin).
TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                   . Similarity
14; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  non-profit institutions used. Usage by and this statement is not removed. Usage by and this statement is not removed. Usage by and the statement is not removed. The profit is a license agreement (See http://www.isb-sib.ch/announce/requires a license agreement (See http://www.isb-sib.ch/announce/requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cytotoxin; Transmembrane; Glycoprotein; Phosphorylation;
                                                                                                                                                                                                                                                                                                  235 AA;
                                                                                                                                                                                                                                                                                                              57
79
148
163
39
163
                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                     80
36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BAA00367.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAK53571.1;
AAK53572.1;
AAK53573.1;
                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                             235
80
279
179
86
39
163
202
                                                                                                                                                                                                                                                                                                                                                                                                                    235
235
35
56
                                   Chordata;
                                             (White-footed mouse)
                                                                                                                                                                                                                            1.6
                        Rodentia;
                                                                                                                                                                                                                                                                                                25806 MW;
                                                                                                                                                                                                                                                              100.0%;
                                                                                                                                                                                                                                                                          77.8%;
                                                                                                         Last
                                                                                                                    Created)
                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                             Score 84;
Pred. No.
                                                                                                                                                                                                                                                                                                           L -> P (IN REF. 3
I -> T (IN REF. 3
F -> S (IN REF. 3
                                                                                                                                                                                                                                                                                                                                              BY SIMILARITY.
N-LINKED (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                EXTRACELLULAR (POTENTIAL) CLEAVAGE (BY ADAM17) (BY
                                                                                                                                                                                                                                                                                                                                                                                                                   TUMOR NECROSIS FACTOR,
TUMOR NECROSIS FACTOR,
CYTOPLASMIC (POTENTIAL)
SIGNAL-ANCHOR (TYPE-II
                                                                                                                                                                                                                                                                                                                                                                    PHOSPHORYLATION (BY CK1) (BY
                                                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL)
                       Sciurognathi;
                                   Craniata; Vertebrata;
                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                B808EC6D049C2F3B
                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                            235
                                                                                                                                                                                                                                                             DB 1;
6.4e-(
                                                                                                                                            ξ
                                                                                                                                                                                                                                                  .4e-06;
                        Muridae;
                                                                                                                                                                                                                                                                                                           AND
                                                                                                                                                                                                                                                                                                                                   AND
                                                                                                                                                                                                                                                                       Length 235
                                                                                                                                                                                                                                                                                                CRC64;
                                                                                                                                                                                                                                                                                                          555
                                   Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                    MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                           SOLUBLE
                                                                                                                                                                                                                                                                                                                                               (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEMBRANE FORM
                    Sigmodontinae;
                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY).
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RESULT 4
TNFA_CAVPO
ID TNFA_C1
AC P51435
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                                                                              В
                                                                                                                                                                                      Query Match
Best Local Similarity
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COSITE;

Cytokine; Cy.

Signal-anchor.

CHAIN 80 2:

TN 136
TNFA_CAVPO P51435;
                                                                                                                                                                                                                                     SITE
                                                                                                                                                                                                                                                                                                                                                                                PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              entities requires a license agreement (s or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                       PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; M59233; AAA40596.1; -. HSSP; P06804; 2TNF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                              DISULFID
                                                                                                                                                                                                                          MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       [1]
SEQUENCE FROM N.A.
                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Sequence of the tumor necrosis factor/cachectin (TNF)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=92218012; PubMed=1348497;
                                                                                                     3 PKDTPEGAELKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation.

SUBUNIT: Homotrimer (By similarity).

SUBCELLULAR LOCATION: Type II membrane protein. Also exists as extracellular soluble form (By similarity).

PTM: The soluble form derives from the membrane form by proteolytic processing (By similarity).

PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form occurs by binding to soluble TMFRSFIA/TMFR1 (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DISEASE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISEASE: CACHEXIA ACCOMPANIES A VARIETY OF CANCER AND INFECTION, AND IS CHARACTERIZED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           similarity)
                                                                              PKETPEGSELKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AND MALNUTRITION.
                                                                                                                                                                                                                                                                                                                                           Cytotoxin;
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235 AA;
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                                                                                                                                 Conservative
                                                                                                                                                                                235 E

80 C

2 F

179 E

86 NW;
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235
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56
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                                                                                                                                             71.3%;
85.7%;
                                                                                                                                                                                                                                                                                                                                      Transmembrane; Glycoprotein; Phosphorylation;
                                                                                                                               N
                                                                                                                                           Score 77; DB 1;
Pred. No. 7.9e-05;
                                                                                                                                                                                                                                                                        TUMOR NECROSIS FACTOR, MEMBRANE FORM.
TUMOR NECROSIS FACTOR, SOLUBLE FORM.
CYTOPLASMIC (POTENTIAL).
SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                   EXTRACELLULAR (POTENTIAL).
CLEAVAGE (BY ADAM17) (BY SIMILARITY).
PHOSPHORYLATION (BY CK1) (BY SIMILARITY).
                                                                                                                                                                                                N-LINKED
                                                                                                                                                                                                         BY SIMILARITY
            PRT;
                                                                                                                                                                             LINKED (GLCNAC. . .) (POTENTIAL)
235A5CFC9F9AC624 CRC64;
                                                                                                                               Mismatches
                                                                                                                               0,
                                                                                                                                                      Length 235
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BY GENERAL
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SMART; SM0020/; INF_1; 1.

PROSITE; PS00251; TNF_1; 1.

PROSITE; PS00251; TNF_2; 1.

PROSITE; PS00251; TNF_2; 1.

PROSITE; PS0049; TNF_2; 1.

Cytokine; Cytotoxin; Transmembrane; Phosphorylation; Signal-anchor.

Cytokine; Cytotoxin; Transmembrane; Phosphorylation; Signal-anchor.

Cytokine; Cytotoxin; Transmembrane; Phosphorylation; Signal-anchor.

Cytokine; Cytotoxin; Transmembrane; Phosphorylation; Signal-anchor.

Cytokine; Cytokine; Cytokine; Phosphorylation; Signal-anchor.

Cytokine; Phosphorylation
    DOMAIN
SITE
MOD_RES
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-OCT-1996
01-OCT-1996
15-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-Hartley; TISSUE-Lung; Yuan H.T., Kelly F.J., Bingle C.D.; Submitted (NOV-1995) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
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Am. J. Phystol. 273:L524-L530(1997).
Am. J. Phystol. 273:L524-L530(1997).
-!- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
TNFRSF1B/TNFBR. It is mainly secreted by macrophages and
induce cell death of certain tumor cell lines. It is pos-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; U77036; AAB19210.1; -. HSSP; P06804; 2TNF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; U39839; AAB06492.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               White A.M., Yoshimura T., Smith A.W., Westwick J., Watson M.L., "Alrway inflammation induced by recombinant guinea pig tumor necrosis" {}^{\rm n}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cavia porcellus (Guinea pig).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Hystricognathi; Caviidae; Cavia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN-Dunkin-Hartley;
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SEQUENCE FROM N.A.
TISSUE=Lung;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ligand superfamily member 2) (Cachectin). TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE-97462215;
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SUBUNIT: HOMOTITHER (By similarity).

SUBCELLULAR LOCATION: Type II membrane protein. Also exists extracellular soluble form (By similarity).

PTM: The soluble form derives from the membrane form by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
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DISEASE: CA
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PTM: The membrane form, but not the sphosphorylation of the phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1
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34, Last sequence update)
EXTRACELLULAR (POTENTIAL).
CLEAVAGE (BY ADAM17) (BY S
PHOSPHORYLATION (BY CK1) (
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISEASES,
BY GENERAL
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                                     (BY SIMILARITY).
                                                                                        SIMILARITY)
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SEQUENCE

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                                                                                                                                   Pauli U., Beutler B., Peterhans E.;

"Porcine tumor necrosis factor alpha: cloning with the polymerase chain reaction and determination of the nucleotide sequence.";

Gene 81:185-191(1989)

-i- FUNCTION: Cytokine that binds to TNFRSFIA/TNFRI and TNFRSFIB/TNFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P23563;
01-NOV-1991 (Rel. 20, Created)
01-NOV-1991 (Rel. 20, Last sequence update)
01-NOV-1991 (Rel. 20, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Sequence of the swine major histocompatibility complex region containing all non-classical class I genes.";
Tissue Antigens 57:55-65(2001).
                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE-90034181; Pub. Pauli U., Beutler B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 44-232 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE-21108615;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Choi C.S., Molitor T.W., Lin G.F., "Complete nucleotide sequence of a necrosis factor-alpha.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
MEDLINE-91016861; PubMed-2216741;
Drews R.T., Coffee B.W., Prestwood A.K.,
"Gene sequence of porcline tumor necrosis
"Gene sequence of sequence of porcline tumor necrosis
"Quence of porcline tumor necrosis
"Nucleic Acids Res. 18:5564-5564(1990)."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sus scrofa (Plg).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Renard C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Anim. Biotechnol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE=Macrophage;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kuhnert P., Wuethrich C., Peterhans E., Pauli U.;
"The porcine tumor necrosis factor-encoding genes: sequence and comparative analysis.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=91340150; PubMed=1874444; Kuhnert P., Wuethrich C., Peterhans E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gene 102:171-178(1991).
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Cachexia, under certain control proliferation and induce cell differentiation.
SUBUNIT: Homotrimer (By similarity).
SUBCELLULAR LOCATION: Type II membrane protein.
extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    *21108615; PubMed=11169259;
P., Rogel-Gaillard C., Cattolico L., Duprat S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              white; TISSUE=Fibroblast;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                       PubMed=2478420;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2:97-105(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                192
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84.6%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               McGraw R.A.;
factor alpha.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA
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                                                          Also
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Sus.
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RESULT 6

TNFA_DELLE

STANDARD;

SEQUENCE FROM N.A

OBWNRI;
15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
15-JUN-2002 (Rel. 41, Last annotation update)
15-JUN-2002 (Rel. 41, Last annotation update)
12 Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor 1 igand superfamily member 2) (Cachectin).
15 TNF OR TNFSF2 OR TNFA.
16 Delphinapterus leucas (Beluga whale).
17 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
18 Mammalia; Butheria; Cetartiodactyla; Cetacea; Odontoceti;

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                                                                                                      Matches
                                                                                                                           Query Match
Best Local
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PIR; S17290; S17290.
PIR; S18965; S18965.
HSSP; P01375; 4TSV.
                                                                                                                                                                                                         SITE
MOD_RES
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRINTS; PR01234; TNECROSISFCT.
ProDom; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
PR0SITE; PS00251; TNF_1; 1.
PR0SITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cytokine;
                                                                                                                                                                                                                                                                                                                                                                     TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; AJ251914; CAB63852.1; EMBL; M29079; AAA31128.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; X54001; CAA37949.1; -. EMBL; X54859; CAA38639.1; -. EMBL; X57321; CAA40591.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           modified and this statement is not removed. entitles requires a license agreement (See
  178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           use
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                                  4 KDTPEGAELKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      European Bioinformatics Institute. There are no restrictions by non-profit institutions as long as its content is in
  RETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                similarity)
DISEASE: CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      proteolytic processing (By similarity).

PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation membrane form ocurrs by binding to soluble TNFRSF1A/7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AND MALNUTRITION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CANCER AND INFECTION, AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                      10;
                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                             Cytotoxin; Transmembrane; Phosphorylation; Signal-anchor.

1 232 TUMOR NECROSIS FACTOR, MEMBRANE FORM.

77 232 TUMOR NECROSIS FACTOR, SOLUBLE FORM.

1 35 CYTOPLASMIC (POTENTIAL).

36 56 SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEI
                                                                                                                                                                                                         232 AA;
                                                                                                Conservative
                                                                                                                                                                                                                                                                     57
76
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190
                                                16
                                                                                                                                                                                                       25254 MW;
                                                                                                                           60.2%;
76.9%;
                                                                                                2;
                                                                                                                           Score 65;
Pred. No.
                                                                                                                                                                                                                               PHOSPHORYLATION (BY CK1)
BY SIMILARITY.
                                                                                                                                                                                                                                                                             EXTRACELLULAR (POTENTIAL)
CLEAVAGE (BY ADAM17) (BY
                                                                                                                                                                                                                                                                                                                                     (POTENTIAL)
                                                                                                                                                                                                 65B28F702D99C8BE CRC64;
                                                                                              Mismatches
                                                                                                                         No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        to soluble TNFRSF1A/TNFR1
                                                                                                                           0
                                                                                                                                                 DB 1;
                                                                                                                         .0058;
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                                                                                                                                              Length 232;
                                                                                           Indels
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                                                                                        0; · Gaps
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TNFA
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                                                                                                                                                                                                                                                 Query Match
Best Local
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      01-NOV-1990 (Rel. 1)
15-JUN-2002 (Rel. 4)
Tumor necrosis factuligand superfamily (
                                                                                                                                                                                                                                                                                                                                                                                          JSITE;

Lytokine; Cy

Signal-anchor.

"UAIN 78 25
                                                                                                                                                                                                                                                                                                              DISULFID CARBOHYD
                                                                                                                _FELCA
                                                                     01-NOV-1990
                                                                                      P19101;
                                                                                                                                                                                                                                                                                                                                                            SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
Cytokine; Cytotoxin; Transmembrane; Glycoprotein; Phosphorylation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the European Bioinformatics Institute. There are no restrictions on use by non-profit institutions as long as its content is in no modified and this statement is not removed. Usage by and for commen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                  TNFA_FELCA
                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                            MOD_RES
                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SMART; SM00207; TNF; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRINTS; PR01234; TNECROSISFCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pfam; PF00229; TNF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; AF320323; AAL56946.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           entities requires a license agreement (See http://www.isb-sib.ch/announce/
or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             factor-alpha.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Molecular cloning and characterization of beluga whale (Delphinapterus leucas) interleukin-lbeta and tumor necrosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Denis F., Archambault D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PubMed=11768130
                                                                                                                                                                            179
                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                        4 KDTPEGAELKPWY 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           proliferation and induce cell differentiation (By similarity).
SUBUNIT: Homotrimer (By similarity).
SUBCELLULAR LOCATION: Type II membrane protein. Also exists as extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane form by proteolytic processing (By similarity).
PTM: The membrane form, but not the soluble form, is PTM: The membrane form, but not the soluble form, is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               J. Vet. Res. 65:233-240(2001). FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TNFRSF1B/TNFBR: It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent
                                                                                                                                                                            RETPEGAEAKPWY 191
                                                                                                                                                                                                                                        10;
                 ) (Rel. 16, 12) (Rel. 41, 15) csis factor
                                                              (Rel.
                                                                                                                                                                                                                                                                                                              57
77
2
145
95
                                                                                                                                                                                                                                      Conservative
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                                                                                                  STANDARD;
                                                16,
16,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TNF_abc;
16, Last sequence update)
41, Last annotation update)
tor precursor (TNF-alpha) (Tumor necrosis factor
member 2) (Cachectin).
                                                                                                                                                                                                                                                                                                                                                                                                     233
233
35
56
                                                                                                                                                                                                                                                                                               25420
                                                                                                                                                                                                                                                 60.2%;
76.9%;
                                                                   Created)
                                                                                                                                                                                                                                                                                                WW;
                                                                                                                                                                                                                                     2
                                                                                                                                                                                                                                                 Score 65;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                 TUMOR NECROSIS FACTOR, MEMBRANE FORM.
TUMOR NECROSIS FACTOR, SOLUBLE FORM.
CYTOPLASMIC (POTENTIAL).
SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                              N-LINKED (GLCNAC.
                                                                                                                                                                                                                                                                                                                           BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                   CLEAVAGE (BY ADAM17) (BY SIM: PHOSPHORYLATION (BY CK1) (BY BY STATE ACTION)
                                                                                                                                                                                                                                                                                                                                                         EXTRACELLULAR (POTENTIAL) CLEAVAGE (BY ADAM17) (BY S
                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL)
                                                                                                                                                                                                                                                                                             2DF37DCB2BC9E961 CRC64;
                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                 DB 1;
0.0058;
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                                                                                                                                                                                                                                                               Length 233;
                                                                                                                                                                                                                                   Indels
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MOD_RES
DISULFID
CONFLICT
CONFLICT
                CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 proliferation and induce cell differentiation.

1- SUBURIT: Homotrimer (By similarity).

SUBCELLULAR LOCATION: Type II membrane protein. Also exists extracellular soluble form (By similarity).

1- PTM: The soluble form derives from the membrane form by proteolytic processing (By similarity).

1- PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SITE
                                                                                                                                                                               PROSITE; PS00251; TNF_1; 1.

PROSITE; PS50049; TNF_2; 1.

Cytokine; Cytotoxin; Transmembrane; Phosphorylation;
                                                                                                                                                                                                                           PRINTS; PR01234; TNECROSISFCT. ProDom; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                            modified and this statement is not removed. Usage by an entities requires a license agreement (See http://www.isb-or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                     This
                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                      PIR; S11688; S11688.
HSSP; P01375; 4TSV.
                                                                                                                                                                                                                                                                                                                               EMBL; X54000; CAA37948.1; -. EMBL; M92061; AAA30818.1; -.
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Mammalia; Eutheria;
                                                                                                                                      TRANSMEN
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                                                                                                                                                                           CHAIN
                                                                                                                                                                                                                                                                  Pfam;
                                                                                                                                                                                                                                                                                                                                                                                                                       the European Bioinformatics Institute.
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                                                                                                                                                                                                                                                                                          InterPro;
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DISEASE: CA
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EXTRACELLULAR (POTENTIAL).

CLEAVAGE (BY ADAM17) (BY SI
PHOSPHORYLATION (BY CK1) (B
BY SIMILARITY.
G -> R (IN REF. 2).
R -> W (IN REF. 2).
L -> H (IN REF. 2).
A -> T (IN REF. 2).
T -> A (IN REF. 2).
                                                                                                                                        TUMOR NECROSIS FACTOR, MEMBRANE FORM.
TUMOR NECROSIS FACTOR, MEMBRANE FORM.
CYTOPLASMIC (POTENTIAL)
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SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
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Matches
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                                                                                                                                                                         Nedwin G.E., Naylor S.L., Sakaguchi A.Y., Smith D.H. Jarrett-Nedwin J., Pennica D., Goeddel D.V., Gray P. "Human lymphotoxin and tumor necrosis factor genes: homology and chromosomal localization."; Nucleic Acids Res. 13:6361-6373(1985).
                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.

MEDLINE-85086244; PubMed-6392892;
Pennica D., Nedwin G.E., Hayflick J.S., Seeburg P.H.,
Palladino M.A., Kohr W.J., Aggarwal B.B., Goeddel D.V.
"Human tumour necrosis factor: precursor structure, ex
homology to lymphotoxin.";
Nature 312:724-729(1984).
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TNFA_HUMAN
         Marmenout A., Fransen L., Tavernier J., van
Kawashima E., Shaw A., Johnson M.J., Semon I
Ruysschaert M.R., van Vliet A., Fiers W.;
                                               MEDLINE=86030296; PubMed=3932069;
                                                                                                                                        SEQUENCE FROM N.A. MEDLINE=85142190; PubMed=3856324;
                                                                                                                                                                                                                                    SEQUENCE FROM N.A. MEDLINE=86016093;
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Medospasov S.A., Shakhov A.N., Turetskaya R.L., Mett V.A.
Azizov M.M., Georgiev G.P., Korobko V.G., Dobrynin V.N.,
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Cold Spring Harb. Symp. Quant. Biol. 51:611-624(1986).
                                                              SEQUENCE FROM N.A.
                                                                                                                      Wang A.M., (
van Arsdell
                                                                                                                                                                                                                                                                                                                       MEDLINE-85137898;
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21-JUL-1986 (Rel. 01, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TWF-alpha) ('Ilgand superfamily member 2) (Cachectin).
TNF OR TNFSF2 OR TNFA.
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                                                                                                                                                                                                                                                                          Nature
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313:803-806(1985).
                                                                                 228:149-154(1985).
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1 J.N., Yamamoto R., Mark D
                                                                                                       cloning
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chi H., Ito H., Todd (
ession in Escherichia
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ry DNA
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RRICH RESERVE 
MEDLINE-97186575; PubMed-9034191;

Moss M.L., Jin S.-L.C., Milla M.E., Burkhart W., Carter H.,

Chen W.-J., Clay W.C., Didsbury J.R., Hassler D., Hoffman M. Content 
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Stevenson F.T., Bursten S.L., Loci
"Myristyl acylation of the tumor is
specific lysine residues.";
J. Exp. Med. 176:1053-1062(1992).
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EMBO J. 18:2119-2126(1999).
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Ostade X.V., Tave:
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Shiina S.,
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Bougueleret L., Prie
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ursten S.L., Locksley
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                                                                                                                                    use by non-profit institutions as long modified and this statement is not removed. entitles requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                      EMBL; X02910;
                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "High resolution crystal structure of a human tumor necro alpha mutant with low systemic toxicity.";
J. Biol. Chem. 273:2153-2160(1998)
-i- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages induce cell death of certain tumor cell lines. It is
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cha S.S., Kim J.S., Cho H.S., Shin N.K., Jeong W., Kim Y.J., Hahn J.H., Oh B.H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE-98113178; PubMed-9442056;
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Reed C:, Fu Z.Q., Wu
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J. Biol. Chem. 264:17595-17605(1989).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                X-RAY CRYSTALLOGRAPHY (2.9 ANGSTROMS). MEDLINE=91193276; PubMed=1964681;
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Implications for receptor binding.":
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Eck M.J., Sprang S.R.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=89159409;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tumour-necrosis factor-alpha.";
Nature 385:733-736(1997).
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"Structure of tumour necrosis factor.";
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                                               Local Similarity
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                                                                                                                                                                                                                                                              SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                       phosphorylated on serine residues. Dephosphorylation of the membrane form ocurrs by binding to soluble INPESSIA/TWPRI. DISEASE: CACHEXIA ACCOMPANIES A VARLETY OF DISEASES, INCLUDICANCER AND INFECTION, AND IS CHARACTERIZED BY GENERAL ILL HI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                proliferation and induce cell differentiation. 
 {\tt SUBUNIT:} Homotrimer.
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                                                                                                                                                                                                                                                                                                                                                                                                                               SUBCELLULAR LOCATION: TYPE II MEMBRANE PROTEIN. ALSO EXTRACELLULAR SOLUBLE FORM.
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                                 Conservative
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. 10:1101-1107(1997).
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Wu J., Xue Y.N., Harrison R.W., Chen M.J.,
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InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
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1: FUNCTION: Cytokine that binds to TNRFSF1A/TNFR1 and

TNFRSF1B/TNFB. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin I secretion and is implicated in the induction of cachesia, Under certain conditions it can stimulate cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor ligand superfamily member 2) (Cachectin).
TNF OR TNFSF2 OR TNFA.
                                                                                      TRANSMEM
                                                                                                        DOMAIN
                                                                                                                                                                    PROSITE; PS00251; TNF_1; PROSITE; PS50049; TNF_2;
                                                                                                                                                                                                    SMART; SM00207;
                                                                                                                                                                                                                                                     Pfam; PF00229; TNF; ]
                                                                                                                                                                                                                                                                                                                  EMBL; AB000513; BAA19131.1; -.
                                                                                                                                                                                                                                                                                                                                                                 modified and this statement is not removed. entities requires a license agreement (See
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
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15-JUN-2002 (Rel. 41, Last annotation update)
                                                                                                                                                    /tokine; Cytotoxin;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             proliferation and induce cell differentiation.
SUBUNIT: Homotrimer (By similarity).
SUBCELLULAR LOCATION: Type II membrane protein. Also
extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane form
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membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1
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PTM: The membrane form, but not the soluble form,
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an email to license@isb-sib.ch).
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                                                                                                                                               Transmembrane; Phosphorylation; Signal-anchor
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EXTRACELLULAR (POTENTIAL) (BY CLEAVAGE (BY ADAM17) (BY CF)
PHOSPHORYLATION (BY CK1) (BY SIMILARITY.
                                                                                                  TUMOR NECROSIS FACTOR, MEMBRANE FORM.
TUMOR NECROSIS FACTOR, SOLUBLE FORM.
CYTOPLASMIC (POTENTIAL).
                                                                                 CYTOPLASMIC (POTENTIAL)
SIGNAL-ANCHOR (TYPE-II
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Best Local s
Matches 10
PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
Cytokine; Cytotoxin; Transmembrane; Phosphorylation; Signal-anchor.
                                                   PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1.
                                                                                                                                                                                     modified and this statement is not removed. entities requires a license agreement (See or send an email to license@isb-sib.ch).
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15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis
ligand superfamily member 2) (Cachectin).
TNF OR TNFSF2 OR TNFA.
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01-FEB-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           J. Immunol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=96003435; PubMed=7561102; Villinger F.J., Brar S.S., Mayne A.E., "Comparative sequence analysis of cytol nonhuman primates.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
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                                                                                              InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                         EMBL; U19850;
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179 RETPEGAEAKPWY
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Immunol. 155:3946-3954(1995).
FUNCTION: Cytokine that binds to INFRSFIA/INFR1 and FUNCTION: Cytokine that binds to INFRSFIA/INFR1 and INFRSFIB/INFRSFIB/INFRSFIA/INFR1. It is mainly secreted by macrophages and ca induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation.
SUBCULTULAR LOCATION: Type II membrane protein. Also exists
                                                                                                                                                                                                                                                                                                                                                                                            proteolytic processing (By similarity). PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation
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DISEASE: CA
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                                                                                                                        the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in
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15-DEC-1998 (Rel. 37, Last sequence update)
15-DUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor ligand superfamily member 2) (Cachectin).
TNF OR TNFSE2 OR TNFA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Papio hamadryas ursinus (Chacma baboon).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Catarrhini; Cercopith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        alpha
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                                                                                                                                                                                                                                                                                                                                                    proliferation and induce cell differentiation.
SUBUNIT: Homotrimer (By similarity).
SUBCELLULAR LOCATION: Type II membrane protein. Also exists extracellular soluble form (By similarity).
PM: The soluble form derives from the membrane form by proteolytic processing (By similarity).
PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form but not the soluble form.
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DISEASE: CA
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233 AA;
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H., Schlag G.,
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76.9%;
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                                                                                                                                                                                                                                                                                                                                       binding
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Pred. No.
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CLEAVAGE (BY ADAM17) (BY SIMIPHOSPHORYLATION (BY CK1) (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CYTOPLASMIC (POTENTIAL).
SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BY SIMILARITY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (POTENTIAL)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Giroir B.P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of baboon tumor necrosis
                                                                                                                                                                                                                                                                                                                                         to soluble
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    233
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                                                                                                                                                                                                                                                                        DISEASES, INCLUDING
BY GENERAL ILL HEAL?
                                                                                                                                                                                                                                                                                                                                     TNFRSF1A/TNFR1
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RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P33620;
D1-FEB-1994 (Rel. 28, Created)
01-FEB-1994 (Rel. 28, Last sequence update)
01-FEB-1994 (Rel. 41, Last annotation update)
Tunor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor TNF-alpha)
11gand superfamily member 2) (Cachectin).
 modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                   Submitted (SEP-1991) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
TNFRSF1B/TNFBR. It is mainly secreted by macrophages
induce cell death of certain tumor cell lines. It is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Papio sp. (Baboon).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00251; TNF_1; 1.

PROSITE; PS50049; TNF_2; 1.

Cytokine; Cytotoxin; Transmembrane; Phosphorylation; Cytokine; Cytotoxin; Transmembrane; Phosphorylation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PAPSP
                                                                                                                                                                                                                                                                                                                                                                                                   Sanjanwala M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cercopithecinae; Papio.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TNFA_PAPSP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          InterPro; IPRO Pfam; PF00229;
                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=61183;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOD_RES
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InterPro; IPR000478; TNF_family.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 KDTPEGAELKPWY 16 ::||||||| ||||
                                                                                                                                                                             pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation.

SUBUNIT: Homotrimer (By similarity).

SUBCELLULAR LOCATION: Type II membrane protein. Also exists as extracellular soluble form (By similarity).

PTM: The soluble form derives from the membrane form by proteolytic processing (By similarity).

PTM: The membrane form, but not the soluble form, is
                                                                                                                   SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                       membrane
                                                                                                                                                                   phosphorylated on serine residues. Dephosphorylation of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RETPEGAEAKPWY 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     il Similarity
10; Conserv
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                                             non-profit
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233 AA;
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                                                                                                                                                    form ocurrs by binding to soluble TNFRSF1A/TNFR1
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                                                                                                                                                                                                                                                                                                                                                                                                Edwards A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
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license@isb-sib.ch)
                                          institutions as long as its content
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76.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 65; DB 1;
Pred. No. 0.0058;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TUMOR NECROSIS FACTOR, MEMBRANE FORM.
TUMOR NECROSIS FACTOR, SOLUBLE FORM.
CYTOPLASMIC (POTENTIAL).
SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata; Eutele Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B9403255058D4A03 CRC64;
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                                                        There are no restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 233;
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Best Local S
Matches 10
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MOD_RES
                                                                                                                            Shoji Y., Inoue Y., Sugisawa H., Itou T., Endo T., Sakai T.;
"Molecular cloning and functional characterization of bottlenose
dolphin (Tursiops truncatus) tumor necrosis factor alpha.";
Vet. Immunol. Immunopathol. 82:183-192(2001)
-!- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can
induce cell death of certain tumor cell lines. It is potent
pyrogen causing fever by direct action or by stimulation of
interleukin 1 secretion and is implicated in the induction of
cachexia, Under certain conditions it can stimulate cell
                                                                                                                                                                                                                                                                                                                                        Tursiops truncatus (Atlantic bottle-nosed dolphin).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Cetartiodactyla; Cetacea; Odontoceti;
                                                                                                                                                                                                                                                                                                                                                                                      ligand superfamily member 2) (Cachectin). TNF OR TNFSF2 OR TNFA.
                                                                                                                                                                                                                                                                                                                                                                                                            15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q9BEA1;
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                                                                                                                                                                                                                                                                         PubMed=11587733;
                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                               NCBI_TaxID=9739;
                                                                                                                                                                                                                                                                                                                                Tursiops
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SMART; SM00207; TNF; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              179 RETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nterPro; IPR000478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity hes 10; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 KDTPEGAELKPWY
                                                    proliferation and induce cell differentiation (By similarity). SUBUNIT: Homotrimer (By similarity). SUBUNIT: Homotrimer (By similarity). SUBCELLULAR LOCATION: Type II membrane protein. Also exists as extracellular soluble form (By similarity). PTM: The soluble form derives from the membrane form by
                           proteolytic processing (By similarity).

PTM: The membrane form, but not the soluble form,
                phosphorylated on serine residues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S22052
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233 AA;
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  form ocurrs by binding to soluble
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76.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 65; DB
Pred. No. 0.00
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EXTRACELLULAR (POTENTIAL).
CLEAVAGE (BY ADAM17) (BY S:
PHOSPHORYLATION (BY CK1) ()
MYRISTATE (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CYTOPLASMIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MYRISTATE (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        455360B48DC74173 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NECROSIS FACTOR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      233 AA
                Dephosphorylation of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .0058;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (POTENTIAL)
TNFRSF1A/TNFR1 (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 233;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                        Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEMBRANE FORM.
SOLUBLE FORM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY)
                                                                                                                                                                                                                                                                                                                                          Delphinidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 10
                                                                                                                                                                                                                                                                                                                                                                                                                    P13296; Q28320; Q9MYZ2;
01-JAN-1990 (Rel. 13, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor Ijand superfamily member 2) (Cachectin).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   _CAPHI
                    SEQUENCE OF 44-234 FROM N.A
                                                                   Submitted
                                                                                             Goldstein
                                                                                                                                                                  Submitted
                                                                                                                                                                         TISSUE-Splenocyte;
Takakura H., Mori Y., Tatsumi M.;
"Molecular cloning of caprine TNE-alpha cDNA and its expression E.coli and insect cells.";
                                                                                                                                                                                                                                                                                                                   Mammalia; Eutheria; Cetar
Bovidae; Caprinae; Capra.
NCBI_TaxID~9925;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SITE; .
ytokine; Cy.
signal-anchor.
"AIN 78 29
TISSUE=Ovarian
                                                                                                                                                                                                                                                                                                                                                                                                           Capra hircus (Goat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TNFA_CAPHI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProDom; PD002012; TNF_abc; SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; AB049358; BAI
HSSP; P01375; 4TSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cytokine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRINTS; PR01234; TNECROSISFCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           modified and this statement is not removed.
                                                                                          SEQUENCE OF 41-234 FROM N./
Soldstein I.M., Henner D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00229; TNF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR000478;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR003636; TNF_abc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           179 RETPEGAEAKPWY 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4 KDTPEGAELKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AB049358;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity 76.
                                                                 (MAR-1989) to the
                                                                                                                                                           (JUL-1996) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cytotoxin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     57
77
2
145
95
233 AA;
                                                                                                                 41-234 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BAB39855.1; -.
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78
2
177
                                                                                                                                                                                                                                                                                                                                                               Chordata; Craniata; Vertebrata; Eute Cetartiodactyla; Ruminantia; Pecora;
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233
35
56
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25404
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76.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Transmembrane; Glycoprotein; Phosphorylation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TNF_family
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ME.
                                                                                             Talhouk A.;
                                                              EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 65; DB 1;
Pred. No. 0.0058;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-LINKED (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TUMOR NECROSIS FACTOR, MEMBRANE FORM.
TUMOR NECROSIS FACTOR, SOLUBLE FORM.
CYTOPLASMIC (POTENTIAL).
SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EXTRACELLULAR (POTENTIAL) CLEAVAGE (BY ADAM17) (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PHOSPHORYLATION (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     71CC39C699CC49D9 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ΑA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Usage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 233;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CK1) (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .) (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               γd
                                                                                                                                                                                                                                                                                                                                                                                 Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and for
                                                                                                                                                                                                                                                                                                                                                                 Bovoidea;
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CONFLICT
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MOD_RES
                                                                                                                                                                                                                                                                                                          InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                               EMBL; D86587; BAA13130.1; -.
EMBL; X148.8; CAA32937.1; ALT_FRAME.
EMBL; AF276985; AAF87741.1; -.
EMBL; X77317; CAA54523.1; -.
PIR; S06192; S06192.
HSSP; P01375; 4TSV.
                                                                                                                                              SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                  use by non-profit institutions as long modified and this statement is not removed. entitles requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This
     SEQUENCE
                                                                                                                       CARBOHYD
                                                                                                                                  DISULFID
                                                                                                                                                                                                                                                                                  ProDom; PD002012; TNF_
SMART; SM00207; TNF; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (JAN-1994) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Wang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rimstad E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 75-234 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FISSUE-Blood;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Goat ovarian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation.

SUBUNIT: Homotrimer (By similarity).

SUBCELLULAR LOCATION: Type II membrane protein. Also exists as extracellular soluble form (By similarity).

PTM: The soluble form derives from the membrane form by proteolytic processing (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages induce cell death of certain tumor cell lines. It is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY CAUTION: Ref. 2 sequence differs from that shown due to a frameshift in position 60.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISEASE: CACHEXIA ACCOMPANIES A VARIETY OF DISEASES, INCLUDING CANCER AND INFECTION, AND IS CHARACTERIZED BY GENERAL ILL HEAL!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        proteolytic processing (By similarity).

PTM: The membrane form, but not the soluble form, phosphorylated on serine residues. Dephosphorylatinembrane form ocurrs by binding to soluble TNFRSF:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AND MALNUTRITION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SWISS-PROT entry is copyright. It is produced through a collaboration en the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B., Zhang Y.;
t ovarian TNF alpha cDNA sequence.";
itted (JUN-2000) to the EMBL/GenBank/DDBJ databases
                  57
78
146
96
79
119
119
1155
1164
1184
                                                                                                                                                                                                                                                                                               TNF_abc; 1.
                                         79
178
96
79
119
129
155
164
     25519
     MV.
              E -> EG
                                                      N-LINKED (GLONAC.
R -> S (IN REF. 4)
E -> A (IN REF. 4)
T -> N (IN REF. 4)
H -> Q (IN REF. 4)
Y -> D (IN REF. 4)
                                                                                                                                                  (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
EXTRACELLULAR (BY CK1) (
                                                                                                                                         PHOSPHORYLATION (BY CK1) (BY SIMILARITY).
CLEAVAGE (BY ADAM17) (BY SIMILARITY).
E -> EG (IN REF. 4).
MISSING (IN REF. 2).
2 -> L (IN REF. 3 AND 4).
9768E33BBBABB041 CRC64;
                                                     S (IN REF. 4).
A (IN REF. 4).
N (IN REF. 4).
O (IN REF. 4).
O (IN REF. 4).
                                                                                                                                                                                                                                                                                                                                                                                                                                            (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dephosphorylation of the soluble TNFRSF1A/TNFR1 ()
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  There
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     as its content
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Usage
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ьy
                                                                                                                   (POTENTIAL)
                                                                                                                                                                                          MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  restrictions
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a collaboration
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RESULT 15
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Best Local :
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035734;
15-JUL-1999 (Rel. 38, 0
15-JUL-1999 (Rel. 38, 0
15-JUN-2002 (Rel. 41, 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor TNF or TNFSF2 OR TNFA) (Cachectin).

THE OR TNFSF2 OR TNFA (Marmota monax (Woodchuck).

Eukaryota; Metazoa: C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute, There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gene 242:295-305(2000).

-i- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophage.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
TISSUE-Peripheral blood;
MEDLINE-20184748; PubMed=10721723;
Li D.H., Havell E.A., Brown C.L., Cullen J.M.;
"Woodchuck lymphotoxin-alpha, -beta and tumor necrosis factor structure, characterization and biological activity.";
                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
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                                                                                                                                                                                                                                                                                                                                                                                                           <del>-</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zhou H., Hu J., Seeger C.; Submitted (AUG-1998) to the EMBL/GenBank/DDBJ databases
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Mammalia; Eutheria; Rodentia; Sciurognathi; Sciuridae; Sciurinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE=Peripheral blood;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Molecular cloning of the woodchuck cytokines: TNF-alpha, IFN-gamma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=9995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Marmota
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ::|||||| ||||
180 RETPEGAEAKPWY 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mmunogenetics 47:332-335(1998).
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                                                                                                                                                                                                                                                                                                                                       proliferation and induce cell differentiation...
SUBUNIT: Homotrimer (By similarity).
SUBUNIT: Homotrimer (By similarity).
SUBCELLULAR LOCATION: Type II membrane protein. Also exists extracellular soluble form (By similarity).
PTM: The soluble form derives from the membrane form by proteolytic processing (By similarity).
PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form occurs by binding to soluble TNFRSF1A/TNFR1 (Existing the soluble to the soluble 
                                                                                                                                                                                                         SIMILARITY: BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.
                                                                                                                                                                                                                                                          DISEASE: CACHEXIA ACCOMPANIES A VARIETY OF CANCER AND INFECTION, AND IS CHARACTERIZED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 pyrogen causing fever by direct action or by stimulation of interleukin I secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TNFRSF1B/TNFBR. It is mainly secreted by macrophages induce cell death of certain tumor cell lines. It is
                                                                                                                                                                                                                                             MALNUTRITION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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76.9%;
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                                                                                                                                                                                                                                                                   DISEASES, INCLUDING BY GENERAL ILL HEAL
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                                                Query Match
Best Local
                                                                                         MOD_RES
                                                                                                             SITE
                                                                                                                                                                               PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
Cytokine; Cytotoxin; Transmembrane;
                                                                                                                                                                                                              PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1. SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                          EMBL; AF082491; AAC32615.1; -. EMBL; AF012910; AAF34863.1; -. HSSP; P06804; 2TNF.
                                                                                SEQUENCE
                                                                                                                        DOMAIN
                                                                                                                                                                          CHAIN
                                                                                                                                            TRANSMEM
                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                             Pfam; PF00229;
                                                                                                                                                                                                                                                       InterPro;
                                                                                                                                                                                                                                                                  InterPro;
                                                                                                                                                                                                                                                                                                         EMBL;
178 PKESLEGAEFKPWY
                   3 PKDTPEGAELKPWY 16
                                        10;
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                                                 Similarity
                                                                                                                                                                                                                                                       IPR000478;
                                                                                                                                                                                                                                                                IPR003636; TNF_abc
                                                                                233 AA;
                                        Conservative
                                                                                                    57
77
2
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1
36
                                                                                                                                                                                                                                             TNF;
                                                                                         233
78
2
177
 191
                                                                                25764 MW;
                                               57.48;
71.48;
                                                                                                                                                                                                                                                      TNF_family.
                                       2;
                                                Score 62; DB 1;
Pred. No. 0.017;
                                                                                                                                      DEPARTMENT OF TYPE-II MEMBRANE FORM.

TUMOR NECROSIS FACTOR, MEMBRANE FORM.

TUMOR NECROSIS FACTOR, SOLUBLE FORM.

CYTOPLASMIC (POTENTIAL).

SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                         PHOSPHORYLATION (BY CK1)
BY SIMILARITY.
                                                                                                           EXTRACELLULAR (POTENTIAL) CLEAVAGE (BY ADAM17) (BY
                                                                                                                                 (POTENTIAL)
                                                                              34D3D1965DAAE0E7 CRC64;
                                       Mismatches
                                       2;
                                                         Length 233
                                       Indels
                                                                                                  (BY
                                                                                                             SIMILARITY)
                                                                                                 SIMILARITY).
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                                     Gaps
                                     0;
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Search completed: April 4, 2003, 08:40:28
Job time: 7.85484 secs

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Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0% Maximum Match 100%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Minimum DB seq length: Maximum DB seq length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OM protein - protein search, using sw model
   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
  Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     671580 seqs, 206047115 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BLOSUM62
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gapop 10.0 ,
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  71.3
71.3
71.3
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74.1
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sp_bacteria:*
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                                                     Q9BEF4
Q9UIV3
Q99ND1
Q9BEC4
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Q9P1Q2
097543
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043647
Q9BEE8
Q9BEG0
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                                                                                                                          Q9JI26
Q9JI27
Q91ZL4
Q9ERG6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            summaries
                                                                                                                                                                                                             SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Search time 24:6774 Seconds (without alignments) 141.944 Million cell updates/sec
                   Q9bec5
043647
Q9bee8
 Q9beg0
Q9beg1
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097543
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                                                                                                                                                                               Description
                                                                                                                                    Q9ji26 rattus norv
Q9ji27 rattus norv
Q9lzl4 sigmodon hi
                                                              29uiv3 homo sapien
Q99nd1 tamiasciuru
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070332 mesocricetu
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3 aotus nancy
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7.1	12	12	12	12	12															σ							σ	σ
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Q9pzw8 eastern equ	eastern	pzx6 eastern	eastern	Q88678 eastern equ	eastern	western	wester	vanto	Q9z1r1 mus musculu	Q9cfa2 lactococcus	. Q9aes2 clostridium		Q9rd01 streptomyce		029274 archaeoglob		stre	Q9ttj3 equus cabal	otus	097538 actus vocif	aotu	Q27978 bos taurus						

ALIGNMENTS

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Best Local S
Matches 14
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PRODOM; PD002012; TNF_abc; 1.
SMART; SW00207; TNF; 1.
SMO21TE; PS00251; TNF_1; 1.
PROSITE; PS00251; TNF_2; 1.
PROSITE; PS50049; TNF_2; 1.
NOW_TER 235 235
SEQUENCE 235 AA; 25789 MW;
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Q9JI26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-OCT-2000 (TrEMBLrel. 15, Created 01-OCT-2000 (TrEMBLrel. 15, Last sec 01-DEC-2001 (TrEMBLrel. 19, Last ar TNF-alpha propeptide 3 (Fragment). Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "TNF-alpha polymorphism in rats with collagen-induced arthritis."; Submitted (MAY-2000) to the EMBL/GenBank/DDBJ databases. EMBL; AF269160; AR82568.1; -- HSSP; P06804; 2TNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN=DARK AGOUTI;
Seidel M.F., Junier M.-P., Vetter H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A
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Mammalia, Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=10116;
   180
                                                                          3 PKDTPEGAELKPWY 16
PKDTPEGAELKPWY 193
                                                                                                                                                             14;
                                                                                                                                                  Similarity 100.0%; 14; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                  77.8%; Score 84; DB 11; 100.0%; Pred. No. 2.7e-05; ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Created)
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                                                                                                                                                                                                                                                                                                           C801B92D049C2F2E CRC64;
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                                                                                                                                                                                                                             Length 235;
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Q9BEG1

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RESULT 2
109J127
1D 09J127
AC 09J1
AC 09J1
AC 09J1
OT 01-C
DT 01-C
DT 01-C
DT 01-C
DT 01-C
NE
OC Euk
OC Euk
OC Mam
OX NGE
RN 1C
RP SEX
RA SEX

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ID 426

ID 426

AC Q9

AC Q9

DT 01

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PRELIMINALLA,

Q91ZL4;

Q91ZL4;

1 Q1-DEC-2001 (TrEMBLrel. 19, Created)

T Q1-DEC-2001 (TrEMBLrel. 19, Last sequence updator

T Q1-MAR-2002 (TrEMBLrel. 20, Last annotation upper Tumor necrosis factor alpha (Fragment).

Sigmodon hispidus (Hispid cotton rat).

Sigmodon hispidus (Hispid cotton rat).

Sigmodon hispidus (Hispid cotton rat).
       Query Match
Best Local S
Matches 12
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Best Local S
Matches 13
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ProDom; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
PROSITE; PS00251; TNF-1; 1.
PROSITE; PS50049; TNF-2; 1.
NON_TER 235 235
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Q9JI27;
Q1-OCT-2000.
                                                                                                                                                              NON_TER
                                                                                                                                                                                                                                                                                                                                                                Blanco J.C., Pletneya L.M., Prince G.A.;
"Sigmodon hispidus cytokines, chemokines and interferons.";
Submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; Ar421388; AAL18818.1; -.
InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
                                                                                                                                                                                                                                Pfam; PF00229; TNF; 1.
ProDom; PD002012; TNF_abc; 1.
PROSITE; PS00251; TNF_1; UNKNOWN_1.
PROSITE; PS50049; TNF_2; 1.
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SEQUENCE
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"INF-alpha polymorphism in rats with collagen-induced arthritis.";
Submitted (MAY-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; Ar269159; AAF82567.1; -.
HSSP; P06804; 2INF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
TNF-alpha propeptide 5 (Fragment).
Rattus norvegious (Rat).
Rattus norvegious (Rat).
Lukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=42415;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN=DARK AGOUTI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
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                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180 PKDTPEGAELEPWY 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity es 13; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3 PKDTPEGAELKPWY 16
       12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               235
235 AA;
                                                                                                                                                                  156
           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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                                                                                                                                                                  AA;
                                          71.3%;
85.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chordata; Craniata; Vertebrata; Rodentia; Sciurognathi; Muridae;
                                                                                                                                                                  17303 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               74.18;
92.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25806 MW;
       2;
                                  Score 77; DB 11;
Pred. No. 0.00022;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 80; DB 11;
Pred. No. 0.00011;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                           DC565F3BC3C826E4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12A8EC6D0491428D CRC64;
       Mismatches
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                                                                     DB 11; Length 156;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A
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       0,;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Euteleostom1;
; Sigmodontinae;
   0;
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   Gaps
0;
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RESULT 4
Q9ERG6
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AC G9ER
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       070332 PRELIMINARY;
070332;
01-AUG-1998 (TrEMBLrel. 07, Cr
01-AUG-1998 (TrEMBLrel. 18, La
01-OCT-2001 (TrEMBLrel. 18, La
Tumor necrosis factor-alpha (1
                                   Infect. Immun. 66:2135-2142(1998).
EMBL; AF046215; AAC40100.1; -.
HSSP; P06804; 2TNF.
                                                                                                                                                                               MEDLINE=98234044; PubMed=9573100; Melby P.C., Tryon V.V., Chandrasekar B., Freeman G.L.; "Cloning of Syrian hamster (Mesocricetus auratus) cytokine cDNAs and analysis of cytokine mRNA expression in experimental visceral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mesocricetus auratus (Golden hamster).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NON_TER
                                                                                                                                                                                                                                                                                                                                                          TISSUE-SPLEEN;
                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ProDom; PD002012; TNF_abc; SMART; SM00207; TNF; 1. PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE-SPLEEN;
Herbst M.M., Schountz T.;
"Cloning of the deer mouse interferon gamma, interleuking necrosis factor genes.";
submitted (SEP-2000) to the EMBL/GenBank/DDBJ databases EMBL; AF307013; AAG30264.1;
HSSP; P06804; ZTNF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q9ERG6;
01-MAR-2001 (TrEMBLrel. 16,
01-MAR-2001 (TrEMBLrel. 16,
01-DEC-2001 (TrEMBLrel. 18,
           InterPro;
                                                                                                                                                leishmaniasis.'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=10036;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mesocricetus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Peromyscus maniculatus (Deer mouse)
Eukaryota; Metazoa; Chordata; Crania
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam: PF00229; TNF; 1.
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Sigmodontinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tumor necrosis factor alpha (Fragment).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=10042;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        172 PKETPEGSELKPWY 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            101 PKETPQGAELKPWY
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IPR003636; TNF_abc
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217 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   217
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85.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23964 MW;
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Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            D6F90C74C0B3021F CRC64;
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0.00031;
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RESULT 7
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AC 0975
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DT 01-M
DT 01-M
DT 01-C
DE TUMC
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OS Actu
OC Euka
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Matches 12
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Best Local :
                                                                                                                                                                   097543; PRELIMINARY;
097543;
01-MAY-1999 (TIEMBLIEL 10, C
01-MAY-1999 (TIEMBLIEL 10, L
01-OCT-2001 (TIEMBLIEL 18, L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE-PROSTATE TUMOR;
Shao C., Yan W., Zhu F., Yue I
Submitted (MAR-2000) to the El
EMBL; AF098751; AAF71992.1; -
HSSP; P01375; 5TSW.
                                                           Eukaryota; Metazoa; Mammalia; Eutheria; NCBI_TaxID=37293;
       Echeverry S.J.,
                                                                                                                                           TNF-ALPHA.
                                                                                                                 Aotus nancymaae (Owl_monkey).
                                                                                                                                                      Tumor necrosis factor alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRINTS; PR01234; TNECROSISFCT ProDom; PD002012; TNF_abc; 1. PROSITE; PS50049; TNF_2; 1.
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InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
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Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutharia; Primates;
MCBI_TaxID=9606;
                        EQUENCE FROM N.A.
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01-OCT-2000 (TrEMBLrel.
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SEQUENCE
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SMART; SM00207; TNF; 1.
PROSITE; PS00251; TNF_1; 1
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Pfam; PF00229; TNF; 1.
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216 AA;
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                                                                               Primates;
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76.9%;
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Pred. No. 0.0067;
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                                                                          Craniata; Ve:
Platyrrhini;
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       Moreno
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ni; Cebidae;
 Patarroyo
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Murillo L.A.;
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RESULT 8

Q9BEP4

ID Q9BEP

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DT 01-1
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Best Local (
Q9UIV3 PRELIMINARY;
Q9UIV3;
01-MAY-2000 (TrEMBLrel. 13,
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01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation updat
Tumor necrosis factor (Fragment).
                                                                                                                                                                                                                               Prodom; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                         van Dijk M.A.M., de Jong W.W.;

"Indels indicate that rodents are monophyletic and lagomorphs
their sister group.";

Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ286829; CAC28518.1;

HSSP; P01375, 4TSV.
                                                                                             171
                                                                                                                                                                                               SEQUENCE
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InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
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NON_TER
SEQUENCE
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eu
Mammalia; Eutheria; Edentata; Dasypodidae; Cabassous.
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ProDom; PD002011; TNF_abc; 1.
SMART; SM00207; TNF; 1.
PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
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Submitted (JUL-1997) to the EMBL/GenBank/DDBJ databases
EMBL; AF014513; AAD01539.1; -
HSSP; P01375; 4TSV.
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InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
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                                                                                             RETPEGAEAKPWY
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217 AA;
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149 AA;
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23742 MW;
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76.9%;
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Pred. No.
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Nedwin G.E., Naylor S.L., Sakaguchi A.Y., Smi
Pennica D., Goeddel D.V., Gray P.W.;
"Human lymphotoxin and tumor necrosis factor
homology and chromosomal localization.";
Nucleic Acids Res. 13:6361-6373(1985).
     histocompatibility complex that encodes I kappa B family of proteins."; Hum. Mol. Genet. 3:793-799(1994).
                                      MEDLINE=94362679; PubMed=8081366;
Albertella M.R., Campbell D.R.;
"Characterization of a novel gene in the human major
                                                                                                                                                                                                                                      MEDLINE-91086846; PubMed-1670638;
Messer G., Spengler U., Jung M.C., Honold G.,
Riethmueller G., Weiss E.H.;
"Polymorphic Structure of the Tumor Necrosis
                                                                                                                                                                                                                                                                                                                                                                                                           Browning J.L., Ngam-ek A., Lawton P., DeMarinis J., Tizarc Chow E.P., Hession C., O'Brine-Greco B., Foley S.F., Ware "Lymphotoxin-beta: A new member of the TNF family that for heteromeric complex with lymphotoxin on the cell surface." Cell 72:847-856(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIINE=96215741; PubMed=8629302; Utans U., Quist W.C., McManus B.M., Wilso Wallace A.F., Russell M.E.; "Allograft inflammatory factory-1. A cyto molecule expressed in transplanted human transplantation 61:1387-1392(1996).
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"Cloning and genomic characterization
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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01-DEC-2001 (TrEMBLrel.
Tumor necrosis facor.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
MEDLINE=93272029; PubMed=8499947;
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                                                                                                                                                                                                  Polymorphism in the First Intron of the Human 7 elates with A Variant Amino Acid in Position 26 of TNF beta Production.";
                                                                                                                                                                                        173:209-219(1991).
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                                                                                                                                                                                                                                                                                                                                                                                  PubMed=2995927;
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Last annotation update)
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Catarrhini;
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RESULT 10
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Best Local :
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01-JUN-2001 (TrEMBLrel. 17,
01-JUN-2001 (TrEMBLrel. 17,
01-DEC-2001 (TrEMBLrel. 19,
            van Dijk M.A.M.,
                                                                                                               Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                               Tamiasciurus hudsonicus (American red squirrel)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PROSITE;
                                                                                                                                                                              TNFA.
                                                                                                                                                                                            Tumor necrosis factor (Fragment).
                                                                                                                                                                                                                                                                                             Q99ND1
                                                                      NCBI_TaxID=10009;
                                                                                                   Tamiasciurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro; IPR000478; Pfam; PF00229; TNF:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genomics 47:372-382(1998).
EMBL; Y14768; CAA75070.1;
HSSP; P01375; 4TSV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IkBL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Neville M.J., Campbell R.D.;
"Alternative splicing of the LST-1 gene located in the major "Alternative splicing of the LST-1 gene located in the major "Alternative splicing of the LST-1 gene located in the major "Alternative splicing of the LST-1 gene located in the major "Alternative splicing of the LST-1 gene located in the major "Alternative splicing of the LST-1 gene located in the major "Alternative splicing of the LST-1 gene located in the major "Alternative splicing of the LST-1 gene located in the major "Alternative splicing of the LST-1 gene located in the major "Alternative splicing of the LST-1 gene located in the major "Alternative splicing of the LST-1 gene located in the major "Alternative splicing of the LST-1 gene located in the major "Alternative splicing of the LST-1 gene located in the major "Alternative splicing of the LST-1 gene located in the major "Alternative splicing" in the major "Alternative splicing" in the major "Alternative splicing of the LST-1 gene located in the major "Alternative splicing" in the major "Alternative splicing 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ono A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 differential regulation, i Genomics 45:591-600(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "The BAT1 Gene in the MHC Encodes an Evolutionarily Conserved Putative Nuclear RNA Helicase of the D-E-A-D Family.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Peelman L., Chardon P., Nunes M., Renard C., Ge. Van Zeveren A., Coppieters W., Van de Weghe A., Strominger J., Spies T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRINTS; PR01234; TNECROSISFCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           region.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Goto
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=98149985;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA Seq. 8:155-160(1997).
[11]
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
MEDLINE=95324911; PubMed=7601445;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProDom; PD002012; TNF_abc;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Weiss
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                                                                                                                                                                                                                                                                                                                                                                                              178 RETPEGAEAKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'Nucleotide sequencing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Complex expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity hes 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Baey A.,
                                                                                                                                                                                                                                                                                                                                                                                                                               4 KDTPEGAELKPWY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PS00251; TNF_1; 1. PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ., Tamiya G., Oka A., Yamagata T.,
Mizuki N., Watanabe K., Fukuzumi
Chen L., Yamazaki M., Tashiro H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IPR003636; TNF_abc.
IPR000478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Inoko H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    232 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
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                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                N.A.
              de
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rhoff B., Maier
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PubMed=9480751;
                                                                                                                                                                                                                                                                                                                                                                                              190
                                                                                                                                                                                                                                                                                                                                                                                                                                   16
          Jong
                                                                                                                 Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                patern of the Twition, initiation,
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76.9%;
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                                                                                                                                                                                                              Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred.
2; Mis
                                                                                                                                                                                                                                                       Created)
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                                                                                                             Craniata; Veri
Sciurognathi;
                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  E4D71B19C6AE0D03 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
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                                                                                                                                 Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .025;
                                                                                                                                                                                                                                                                                             A
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                                                                                                               Sciuridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Yamagata N., Kikkawa E.,
Y., Taguchi S., Sugawara
Ando A., Ikemura T.,
                                                                                                                                                                                                              update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene LST1 through
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 232;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                η C.,
                                                                                                               Sciurinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            , Vaiman
., Choy W
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rodents

are

monophyletic

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lagomorphs

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Q9BEC5
ID Q9
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                                                             RESULT 12
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                                                                                                                                                                          Query Match
Best Local S
Matches 9
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Best Local s
Matches 10
        01-JUN-2001
01-JUN-2001
                                                                                                                                                                                               PRINTS; PRO1234; TNECROSISECT
PRODOM; PD002012; TNF-abc; 1
SMART; SM00207; TNF; 1
PROSITE; PS00251; TNF-1; 1
PROSITE; PS50049; TNF-2; 1
                              Q9BEC5;
                                                                                                                                                                        NON_TER
NON_TER
SEQUENCE
                                                                                           170
                                                                                                                                                                                                                                                    van Dijk M.A.M., de Jong W.W.;
"Indels indicate that rodents are monophyletic and lagomorphs are
their sister group.";
Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ286831; CAC28539.1;
EMSP; P01375; 1A8M.
InterPro; IPR00336; TNF_abc.
InterPro; IPR00478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRINTS; PR01234; TNECROSISFCT.
ProDom; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
PROSITE; PS00251; TNF 1; 1.
PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                   Talpa europaea (European mole).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Insectivora; Talpidae; Talpa.
                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. van Dijk M.A.M., d
                                                                                                                                                                                                                                                                                                                                                                                                                   01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                               Tumor necrosis factor (Fragment).
                                                                                                                              Local Similarity les 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q9BEC4
                                                                                                          4 KDTPEGAELKPWY 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                             29BEC4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   168 PKESLEGAEFKPWY 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; AJ286824; CAC28540.1; HSSP; P06804; 2TNF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       their sister group.";
Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases
                                                                                      RETPEGAEARPWY 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 PKDTPEGAELKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
     (TrEMBLrel.
                                                                                                                                                                    216
216 AA;
                                     PRELIMINARY;
                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  215
215 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                          216
23542 MW; FFFEFE8DBBD27836 CRC64;
                                                                                                                                     57.4%;
69.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              215
; 23739 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  57.4%;
71.4%;
     17,
17,
Last sequence update)
              Created)
                                                                                                                                     Score 62; I
                                    PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 62; 1
Pred. No. 0
                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          36441309CA5E9898 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                216
                                                                                                                                   DB 6;
0.07;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 11; Length 215;
).069;
                                                                                                                                          Length 216;
                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                            Euteleostomi;
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043647
                                                          Query Match
Best Local (
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Best Local
                                                                                                     PROSITE; PS50049; TNF_1; 1.
NON_TER 1
      103
                                                                                            SEQUENCE
                                                                                                                                InterPro) IPRO00478; TWF_fami.
Pfami. PF00229; TWF; 1.
PRINTS; PR01234; TWECROSISFCT
ProDom; PD002012; TWF_abc; 1.
SMART; SM00207; TWF, 1
                                                                                                                        PROSITE; PS00251;
                                                                                                                                                                                                                                                                                                                                    043647;
043647;
01-JUN-1998
01-JUN-1998
01-DEC-2001
                                                                                                                                                                                                   Jang J.S., Kim B.E.;
Submitted (JAN-1998) to the EMBL/GenBank/DDBJ databases
EMBL; AF043342; AC03542.1; -.
HSSP; P01375; 1A8M.
                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                TNra.
HOMO sapiens (Human).
Motazoa; Chordata;
                                                                                                                                                                                    InterPro; IPR003636; TNF_abc
                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                     Tumor necrosis factor alpha
                                                                                                                                                                                                                                                                    NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         their sister group.";
Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases EMBL, AJ386826; CAC28538.1;
HSSP; PO1375; 4TSV.
InterPro; IPRO03636; TNF_abc.
InterPro; IPRO0478; TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                  171 RETPEGSETKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF00229; TNF; 1.
PRINTS; PR01234; TNECROSISFCT.
PPCDOM; PD002012; TNF_abc; 1.
SMART; SM00207; TNF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tenrec ecaudatus (tailess tenrec).
Eukaryota; Metazoa; Chordata; Craniata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Tumor necrosis factor (Fragment).
RETPRGAEAKPWY 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 van Dijk M.A.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=94439;
                      KDTPEGAELKPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                               4 KDTPEGAELKPWY
::||||:| ||||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         an Dijk m.A.M., de Jong w.W.;
Indels indicate that rodents are monophyletic and lagomorphs
                                               l Similarity
9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
9; Conserv
                                                                                        157 AA;
                                          Conservative
                                                                                                                                                                                                                                                                                                                              (TremBLrel. 06, Created)
(TremBLrel. 06, Last seq
(TremBLrel. 19, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  217 217
217 AA; 23845 MW;
                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                              17380 MW; D1344822267E9F20 CRC64;
                                                     55.6%;
69.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       16
                                                                                                                                                                         TNF_family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    57.4%;
69.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Insectivora; Tenrecidae;
                                                Score 60; DB 4; Length 157; Pred. No. 0.1;
                                                                                                                                                                                                                                                                                                                         Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 62;
Pred. No.
                                                                                                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1C5013E9B777B54A CRC64;
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                                                                                                                                                                                                                                                                                                                                                                        157 AA.
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idae; Tenrecinae; Tenrec.
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RESULT 14 Q9BEE8

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RESULT 15
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Best Local :
                                                          InterPro; IPR003636; TNF_abc.
InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
PRINTS; PR01234; TNECROSISECT.
ProDom; PD002011; TNF_abc; 1.
SMART; SM00207; TNF; 1.
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Ogbego: PRELIA....
O1-JUN-2001 (TrEMBLrel. 17, Created)
O1-JUN-2001 (TrEMBLrel. 17, Last sequence update)
O1-JUN-2001 (TrEMBLrel. 19, Last annotation update)
O1-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              170 ETPEGAEARPWY 181
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Q9BEE8;
Q1-JUN-2001 (TrEMBLrel. 17, Created)
O1-JUN-2001 (TrEMBLrel. 17, Last sequence update)
O1-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                           SEQUENCE FROM N.A.

yan Dijk M.A.M., de Jong W.W.;

"Indels indicate that rodents are monophyletic and lagor
their sister group.";

Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases
EMBL; AJ286828; CAC28514.1;

HSSP; P01375; 1ABM.
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PYCDOM; PD002011; TNF_abc; 1.
SMART; SM00207; TNF; 1.
PROSITE; PS00251; TNF_1; 1.
PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. van Dijk M.A.M., de Jong W.W.; "Indels indicate that rodents are monophyletic and lagomorphs are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TNFA.

Erinaceus europaeus (Western European hedgehog).

Erderyota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Insectivora; Erinaceidae; Erinaceinae; Erinaceus.

NCBI_TaxID=9365;
PROSITE; PS00251; TNF_1; 1. PROSITE; PS50049; TNF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cyclopes didactylus (silky anteater).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Edentata; Myrmecophagidae; Cyclopes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                their sister group.";
Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases
EMBL, AJZ86830; CAC28522.1;
HSSP; P01375; 4TSV.
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InterPro; IPR000478; TNF_family.
Pfam; PF00229; TNF; 1.
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nes 9; Conserv
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215 AA;
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75.0%;
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Pred. No. 0.14;
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SEQUENCE
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217 AA;
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                                Mismatches
                               2;
                                               Length 217;
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Search completed: April Job time: 24.6774 secs

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2003, 08:42:07

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Result
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        protein search, using sw model
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1: /cgn2_6/ptodata/]
2: /cgn2_6/ptodata/]
3: /cgn2_6/ptodata/]
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Maximum Match 10
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                                                                                                                                                                                                                                                                                                                                                                                                                         /cgn2_6/ptodata/1/1aa/5B_COMB.pep:*
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/cgn2_6/ptodata/1/1aa/6B_COMB.pep:*
/cgn2_6/ptodata/1/1aa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/1/1aa/Packfiles1.pep:*
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US-08-883-086-7
US-07-668-517-1
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US-07-668-517-1
US-07-668-517-1
US-07-668-517-4
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US-07-668-517-31
US-07-668-517-31
US-07-668-517-31
US-07-668-517-39
US-07-668-517-39
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US-08-500-860A-25
US-08-500-860A-36
PCT-US93-02475-8
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       Sequence 24, Appl
Sequence 36, Appl
Sequence 36, Appli
Sequence 8, Appli
Sequence 7, Appli
Sequence 7, Appli
Sequence 1, Appli
Sequence 15, Appli
Sequence 15, Appli
Sequence 16, Appli
Sequence 6, Appli
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Sequence 8, Appli
Sequence 9, Appli
Sequence 10, Appli
Sequence 11, Appli
Sequence 35, Appli
Sequence 37, Appli
 Sequence
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     US-08-500-860A-24
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US-08-500-860A-24
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                                                             FEATURE:
           LOCATION: 1
OTHER INFORMATION:
OTHER INFORMATION:
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	36,	-	•	Sequence 28, Appl	•	•	25,	24	24,	, ,	,	,	sequence 18, Appl	; `	מ נ	,	ι α	`.	1

ALTONMENTS

TELEFAX: (703)816-4100
TELEX: 200797 NIXN UR
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 17 amino acids Patent No. 36310...
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: LUCAS, RUDOLPH
APPLICANT: DE BAETSELIER, PATRICK
APPLICANT: ERANSEN, LUCIE
APPLICANT: FRANSEN, LUCIE
APPLICANT: FRANSEN, LUCIE
APPLICANT: SABLON, ERWIN
FITTLE OF INVENTION: THE'R USE AS ACTIVE SUBSTANCES IN PHARMACEUTICAL COMPOSIT:
TITLE OF INVENTION: THEIR USE AS ACTIVE SUBSTANCES IN PHARMACEUTICAL COMPOSIT: ATTORNEY/AGENT INFORMATION:
NAME: BYRNE, THOMAS E.
REGISTRATION NUMBER: 32,205
REPERENCE/DOCKET NUMBER: 1487
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703)816-4000
TELEFAX: (703)816-4100 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version
CURRENT APPLICATION DATA: MOLECULE TYPE: TYPE: amino acid STRANDEDNESS: sin TOPOLOGY: CLASSIFICATION: APPLICATION NUMBER: FILING DATE: COUNTRY: U.S.A. ZIP: 22201-4714 STREET: 1100 NO. CITY: ARLINGTON STATE: VIRGINIA 24, Application US/08500860A 5. 5891679; VIRGINIA Y: U.S.A. linear peptide single US/08/500,860A 1487-8 #1.25

/note= "Biotin-Gly-Gly is coupled to the N-terminus of the peptide"

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RESULT 2
US-08-500-860A-25
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                                           US-08-500-860A-36
                                                             RESULT 3
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         Sequence 36, Application US/08500860A Patent No. 5891679
                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 148:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703)816-4000
TELEFAX: (703)816-4100
TELEX: 200797 NIXN UR
INFORMATION FOR SEQ ID NO: 25:
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Patent No. 5891679
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Matches 13; Conserv
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GENERAL INFORMATION:
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NAME: BYRNE, THOMAS E.
REGISTRATION NUMBER: 32,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: FILING DATE: CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STATE:
                                                                                                                                                                                                                                                  OTHER INFORMATION: OTHER INFORMATION:
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                                                                                                                                                                                                                                                                                LOCATION:
                                                                                                                                                                                                                                                                                                 NAME/KEY:
                                                                                                                                                                                                                                                                                                                                              TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                        TYPE: amino acid
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                                                                                                                                      1 CGPKDTPEGAELKPWYC 17
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1100 NORTH GLEBE ROAD
                                                                                                                                                                                                                                                                                                                                                                                        17 amino acids
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SABLON, ERWIN
                                                                                                                                                                                                                                                                                                                                              linear
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                                                                                                                                                                                                                                                                                                                            peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 108; DB 2; 100.0%; Pred. No. 1.2e-10;
                                                                                                                                                                                     81.5%;
76.5%;
                                                                                                                                                                                                                                                  /note= "Biotin-Gly-Gly is coupled
to the N-terminus of the peptide"
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                                                                                                                                                                    Score 88; DB 2;
Pred. No. 1.5e-07;
2; Mismatches
                                                                                                                                                                                                 Length 17;
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US-08-500-860A-36
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (703)816-4100
TELEX: 200797 NIXN UR
INFORMATION FOR SEO ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 156 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette,
COMPUTER: VE System 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: 14
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703)816-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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        CURRENT APPLICATION DATA:
APPLICATION NUMBER: PC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION: NAME: BYRNE, THOMAS E.
                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
ADDRESSEE: Donald G.
                                                                                                                                                                                                                                                       TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                          NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                      101 PKDTPEGAELKPWY 114
                                                                                                                            STATE: California
COUNTRY: USA
ZIP: 92122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE:
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CITY: ARLINGTON
STATE: VIRGINIA
                                                                                                                                                                                        STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
les 14; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: amino acid
STRANDEDNESS: sir
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FILING DATE:
                                            SOFTWARE: Word Perfect
                                                             OPERATING SYSTEM:
                                                                                                                                                                            CITY: San Diego
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER:
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                                                                                                                                                                                                                                                                                                                      Application PC/TUS9302475
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1100 NORTH GLEBE ROAD
                                                                                                                                                                                                                                                                                         Wisnieski, Bernadine J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       U.S.A.
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DE BAETSELIER,
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linear
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19930412
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                                                             MS-DOS 5
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                                                                                                                                                                                                                                                                        Tumor Necrosis Factor with Modified
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                PCT/US93/02475
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                                                                                           3.5 inch, 1.44 M storage
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INFORMATION FOR SEO ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 157 amino acids
TYPE: AMINO ACIDS
TOPOLOGY: linear
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/852,625
FILING DATE: 12 March 1992
                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette,
COMPUTER: VE System 386
OPERATING SYSTEM: MS-DOX
                                                                            SOFTWARE: Word Perfect
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PC
                                                                                                                                                                                                                                                                                APPLICANT.

TITLE OF INVENTION: Tumor Nector

TITLE OF INVENTION: Ion Channel

TOTAL CONTROLLS: 13
                                                                                                                                                                                                                                                                                                   APPERION: Wisnieski, Bernadine J.
TITLE OF INVENTION: Tumor Necrosis Factor with Modified
                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                     FILING DATE: 1:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                        102 PKDTPEGAELKPWY 115
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                                                                                                                                                                                                                CITY: San Diego
STATE: California
                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                              TELEPHONE: (619) 554-2421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PAGES: 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE: protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3 PKDTPEGAELKPWY 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OTHER INFORMATION: A blank residue designated by OTHER INFORMATION: "Xaa" is inserted after residue No. 70 of rat TNF OTHER INFORMATION: and the sequence numbering is augmented by 1 OTHER INFORMATION: starting with residue No. 71 in order to maximize OTHER INFORMATION: the sequence homology with human TNF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RELEVANT RESIDUES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS: Shirai, T., Shimizu, N., Horiguchi, AUTHORS: S., and Ito, H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                           92122
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1733-1736
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                                                                                                                                                                                                     USA
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                                                                     19930412
                                                                                                                          MS-DOS 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IN SEQ
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                                                                                                                                                _3.5 inch, 1.44 M storage
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
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RESULT 6
US-08-883-086-7
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                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                           COUNTRY: USA
ZIP: 60064-3500
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                               SOFTWARE: FastSEQ Version 2.0 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                    APPLICANT: WILEY, STITLE OF INVENTION: TITLE OF INVENTION:
                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO:
                               CLASSIFICATION:
                                                                                               SOFTWARE:
                                                                                                                                                                                                         CITY: Abbott Park
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   102 PKDTPEGAELKPWY 115
                                                   FILING DATE:
                                                                APPLICATION NUMBER:
                                                                                                              OPERATING SYSTEM:
                                                                                                                                 COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PUBLICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 157 amino acids
TYPE: AMINO ACIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: BJITELECOMMUNICATION INFORMATION: TELEPHONE: (619) 554-2421
                                                                                                                                                                                                                                                         ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: protein FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PAGES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER INFORMATION: A blank residue designated by OTHER INFORMATION: "Xaa" is inserted after residue No. 70 of murine OTHER INFORMATION: TNF and the sequence numbering is augmented by 1 OTHER INFORMATION: starting with residue No. 71 in order to maximize
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1670-1674
1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Identification of a Common Nucleotide Sequence in the 3'-Untranslated Region of mRNA Molecules Specifying Inflammatory Mediators.

Proc. National Academy of Science,
                                                                                                                                                                                                                                 100 Abbott Park Road
                                                                                                                                                                                                                                                                                                                                    WILEY, STEVEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Donald G.
                                                                                                                                 IBM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Caput, D., Beutler, B. Hartog, K. Thayer, R., Brown-Shimer, S. and Cerami, A.
                                                                                                                                                                                                                                                   Abbott Laboratories
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              U.S.A.
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                                                                                                                            Compatible
                                                                                                                                                                                                                                                                                           MEMBER OF THE TNF FAMILY USEFUL
FOR TREATMENT AND DIAGNOSIS OF DISEASE
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                                                           US/08/883,086
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; MOLECULE TYPE:
US~08-883-086-7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 235 amino acids
                                                                                                                                                      INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                 OPERATING SYSTEM: MS-DOS
SOFTWARE: DisplayWrite
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/O
FILING DATE: 19910322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: Satosh
                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 147 amino acid
                                                    FEATURE:
                                                                                                                                                                                                REGISTRATION NUMBER: 25,154
REFERENCE/DOCKET NUMBER:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-8850
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MEDIUM TYPE: Diskette,
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NAME: Matthew Jacob
                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 530 PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180 PKDTPEGAELKPWY 193
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LOCATION:
IDENTIFICATION METHOD:
                                                                     TOPOLOGY:
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CITY: Washington
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nes 14; Conserv
                                   NAME/KEY:
                                                                                        STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
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STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: 847-938-2623
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REFERENCE/DOCKET NUMBER: 6134.US.01
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                                                                                                   AMINO ACID
                                                                                                                                                                                                                                                                  Matthew Jacob
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Porembski, Priscilla E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    D.C.
                                                                                                                 147 amino acids
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                                                                                                                                                                                      202-371-8856
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PENTION: No. 5262309el Physiologically Active
PENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
PENTION: Cell, Pharmaceutical Composition and Method of Recovering
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ilarity 100.0%;
Conservative (
                                                                       linear
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Street, N.W., #700
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Pred. No.
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                                                              Matches
                                                                            Best
                                                                                        Query Match
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Best Local (
                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OPERATING SYSTEM: MS-DOS
SOFTWARE: DISPLAYWRITE
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/
FILING DATE: 19910322
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TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
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MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 5
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                                                                                                                                                                 NAME/KEY:
LOCATION:
94 RETPEGAEAKPWY 106
                                                                                                                                    IDENTIFICATION METHOD: OTHER INFORMATION:
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                                                            Local Similarity
mes 10; Conserv
                                                                                                                                                                                                                                       TYPE: AMINO ACID
                                                                                                                                                                                                                                                                                                                                                         NAME: Matthew Jacob REGISTRATION NUMBER: 25,154 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER:
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                                                                                                                                                                                                                                                                                                                            TELEPHONE:
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                               4 KDTPEGAELKPWY 16
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Satoshi NAKAMURA et al.

VENTION: No. 5262399el Physiologically Active

VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism

VENTION: Cell, Pharmaceutical Composition and Method of Recovering
                                                            Conservative
                                                                                                                                                                                                                                                                                                                202-371-8856
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                                                                                                                                                                                                                       single
                                                                          60.2%;
76.9%;
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                                                                        Score 65; I
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Pred. No. 0.0063;
2; Mismatches
                                                            Mismatches
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                                                                        DB 1;
0.0064;
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RESULT 9 US-07-668-517-15

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US-07-668-517-3
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Best Local Similarity
Watches 10; Conserve
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                                                                                                                                                                   Sequence 3, Application US/07668517
Patent No. 5282309
GENERAL INFORMATION:
STREET: Washington CITY: Washington STATE: D.C.
                                          CORRESPONDENCE ADDRESS:
ADDRESSEE: Wenderoth,
STREET: 805 Fifteenth
                                                                                 APPLICANT: Satoshi NAKAMURA et al.
TITLE OF INVENTION: No. 5262309el Physiologically Active
TITLE OF INVENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
TITLE OF INVENTION: Cell, Pharmaceutical Composition and Method of Recovering
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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FILING DATE: 19910322
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
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94 RETPEGAEAKPWY 106
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TITLE OF INVENTION:
TITLE OF INVENTION:
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5. 5262309
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20005
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805 Fifteenth Street, N.W., #700
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VENTION: No. 5262309el Physiologically Active
VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
VENTION: Cell, Pharmaceutical Composition and Method of Recovering
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76.9%;
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                                     Lind & Ponack
Street, N.W., #700
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                                                                                                                                                                                                                                                                                                                                                    Score 65; DB 1; Length 148; Pred. No. 0.0064;
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US-07-668-517-16
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OTHER INFORMATION:
US-07-668-517-3
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GENERAL INFORMATION:
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Best Local Similarity
                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 5.25 inch, 500 Kb
COMPUTER: IBM Compatible
OPERATING SYSTEM: MS-DOS
SOFTWARE: DisplayWrite
CURRENT APPLICATION DATA:
                                       PRIOR APPLICATION DATA:
ATTORNEY/AGENT INFORMATION:
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TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                         FILING DATE: 19
CLASSIFICATION:
                                                                     APPLICATION NUMBER: UNFILLING DATE: 19910322
                             APPLICATION NUMBER:
                                                                                                                                                                                                     COUNTRY:
                                                                                                                                                                                                               CITY: Washington STATE: D.C.
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TELEPHONE: 202-371-8850
TELEFAX: 202-371-8856
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                                                                                                                                                                                                                                                             ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           95 RETPEGAEAKPWY 107
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: AMINO ACID
STRANDEDNESS: Sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Matthew Jacob
REGISTRATION NUMBER: 25
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEX:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US
FILING DATE: 19910322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE:
                                                                                                                                                                                           20005
                                                                                                                                                                                                                                       805 Fifteenth Street,
                                                                                                                                                                                                                                                                                                                                                                                 Application US/07668517
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                                                                                                                                                                                                                                                                         Satoshi NAKAMURA et al. VENTION: No. 5262309el Physiologically Active VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism VENTION: Cell, Pharmaceutical Composition and Method of Recovering
                                                                                                                                                                                                   U.S.A.
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                                                                                                                                                                                                                                                           Wenderoth,
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                                                                                US/07/668,517
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                                                                                                                                                                                                                                    Lind & Ponack
Street, N.W., #700
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Pred. No. 0.0064;
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                                                                    SEQUENCE CHARACTERISTICS:
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LENGTH: 149 amino acids
TYPE: AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Matthew Jacob REGISTRATION NUMBER: 25,154 REFERENCE/DOCKET NUMBER: TELECOMMUNICATION INFORMATION: TELEPHONE: 202-371-8850
                                                                                                                                    TELECOMMUNICATION INFORMATION TELEPHONE: 202-371-8850
                                                                                                                                                                                                                                                      CLASSIFICATION: 530 PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                        SOFTWARE: DisplayWrite CURRENT APPLICATION DATA:
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STRANDEDNESS:
TOPOLOGY: li
                                                                                                                                                                     NAME: Matthew Jacob
REGISTRATION NUMBER: 25
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: UFILING DATE: 19910322
                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM Compatible OPERATING SYSTEM: MS-DOS
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                                 TYPE: AMINO ACID
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                                                LENGTH:
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                                               150 amino acids
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                                                                                                                      202-371-8856
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Satoshi NAKAMURA et al.
VENTION: No. 5262309el Physiologically Active
VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
VENTION: Cell, Pharmaceutical Composition and Method of Recovering
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Pred. No. 0.0064;
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                                                                                                                                                          Query Match
Best Local
                                                                                                                              Matches
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Best Local :
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CURENT APPLICATION DATA:
APPLICATION NUMBER: US/0
FILING DATE: 19910322
CLASSIFICATION: 530
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                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM: MEDIUM TYPE: Diskette,
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TITLE OF INVENTION:
   96
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OTHER INFORMATION:
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LOCATION:
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SOFTWARE: DisplayWrite
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nes 10; Conserv
                                                                                                                        Local Similarity es 10; Conserv
                                                                                                                                                                                                                                                                                                                                           LOCATION:
                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY:
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                                                            4 KDTPEGAELKPWY 16
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RETPEGAEAKPWY 108
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Satoshi NAKAMURA et al.
VENTION: No. 5262309el Physiologically Active
VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
VENTION: Cell, Pharmaceutical Composition and Method of Recovering
CONTRACTOR C
                                                                                                                        Conservative
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76.9%;
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76.9%;
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                                                                                                                                              Score 65; DB 1;
Pred. No. 0.0065;
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Pred. No. 0.0065;
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                                                                                                                        Mismatches
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                                                                                                                                                                             Length 150;
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RESULT 15
US-07-668-517-8
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LOCATION:
IDENTIFICATION METHOD:
OTHER INFORMATION:
US-07-668-517-6
                                                                                                                            Sequence 8, Application US/07668517
Patent No. 5262309
GENERAL INFORMATION:
APPLICANT: Satoshi NAKAMURA et
                                                                                                                                                                                                                                                                                                                          Query Match 60.2%;
Best Local Similarity 76.9%;
Matches 10; Conservative
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US-07-668-517-6
                                                                              TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
                                          NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER: 25,154
REFERENCE/DOCKET NUMBER:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-8856
TELEPAX: 202-371-8856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 6, Application Patent No. 5262309
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 150 amino acids
TYPE: AMINO ACID
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION: APPLICANT: Satosh
                                  ADDRESSEE:
                                                                                                                                                                                                                                                             96 RETPEGAEAKPWY 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 5.25 inch, 500 Kb
COMPUTER: IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION: 530
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: DisplayWrite CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                             4 KDTPEGAELKPWY 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Matthew Jacob
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US
FILING DATE: 19910322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM COMPGLEXX
OPERATING SYSTEM: MS-DOS

PienlavWrite
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE:
3: Wenderoth, Lind & Ponack
805 Fifteenth Street, N.W., #700
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                                            Satoshi NAKAMURA et al.
VENTION: No. 5262309el Physiologically Active
VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism
VENTION: Cell, Pharmaceutical Composition and Method of Recovering
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805 Fifteenth
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VENTION: No. 5262309el Physiologically Active

VENTION: Polypeptide, Recombinant Plasmid, Recombinant Microorganism

VENTION: Cell, Pharmaceutical Composition and Method of Recovering
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Street, N.W., #700
                                                                                                                                                                                                                                                                                                              Score 65; DB 1; Length 150;
Pred. No. 0.0065;
2; Mismatches 1; Indels
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Search completed: April 4, Job time: 10.9677 secs
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LOCATION:

IDENTIFICATION METHOD:

OTHER INFORMATION:

US-07-668-517-8
                                                                                                                       Query Match
Best Local S
                                                                                                             Matches
                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM Compatible OPERATING SYSTEM: MS-DOS SOFTWARE: DisplayWrite CURRENT APPLICATION DATA: APPLICATION NUMBER: US/07/FILING DATE: 19910322
                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                  FEATURE:
                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION: 202-371-8850
TELEPAX: 202-371-8856
                                                  96 RETPEGAEAKPWY 108
                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: 530 PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
                                                                4 KDTPEGAELKPWY 16 ::|||||| ||||
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                                                                                                                                                                                                                                               TOPOLOGY:
                                                                                                                                                                                                                                                          STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                          NAME: Matthew Jacob
REGISTRATION NUMBER: 25
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                        LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
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                                                                                                          60.2%;
nl Similarity 76.9%;
10; Conservati
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                                                                                                       Conservative
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                                                                                             Score 65; DB 1; Length 150;
Pred. No. 0.0065;
2; Mismatches 1; Indels
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Post-processing:
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Perfect score:
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Match
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// cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*
// cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
// cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
// cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*
// cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*
// cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*
// cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
// cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
// cgn2_6/ptodata/2/pubpaa/US09_NEW_PUB.pep:*
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Maximum Match 100%
Listing first 45 summaries
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Gapop 10.0 , Gapext 0.5
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US-10-017-910-8
US-10-185-425-6
US-09-877-156-25
2 US-09-877-156-25
2 US-09-779-050A-24
US-09-93-327A-7
US-09-756-301A-1
0 US-09-756-301A-1
0 US-09-927-703-1
0 US-09-934-465-13
0 US-09-954-280-19
0 US-09-766-535A-1
0 US-09-766-535A-1
0 US-09-756-161A-1
2 US-10-014-253-1
2 US-10-014-534-1
2 US-10-044-534-1
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                                           Sequence 40, Appli
Sequence 8, Appli
Sequence 6, Appli
Sequence 27, Appl
Sequence 28, Appl
Sequence 7, Appli
Sequence 7, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 13, Appli
Sequence 13, Appli
Sequence 14, Appli
Sequence 15, Appli
Sequence 16, Appli
Sequence 17, Appli
Sequence 17, Appli
Sequence 18, Appli
Sequence 18, Appli
Sequence 19, Appli
Sequence 19, Appli
Sequence 11, Appli
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                                                                                                         RESULT 2
US-10-017-910-8
; Sequence 8, Application US/10017910
; Patent No. US20020159970A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                   Sequence 40. Application US/09779050A
Patent No. US20020160416A1
GENERAL INFORMATION:
APPLICANT: BOYLE, WILLIAM
ITILE OF INVENTION: RECEPTOR FROM THE FAMILY
FILE REFERENCE: A-570B
FILE REFERENCE: A-570B
CURRENT APPLICATION NUMBER: US/09/779,050A
CURRENT FILING DATE: 2001-02-12
PRIOR APPLICATION NUMBER: 60/181,800
NUMBER OF SEQ ID NOS: 52
SEQ ID NO 40
LENGTH: 151
TYPE: PRT
COPURATION: 151
TYPE: PRT
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US-09-779-050A-40
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Best Local Similarity
Matches 14; Conserv
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Steinman, Kalph
Steinman, Kalph
Steinman, Kalph
TITLE OF INVENTION: A PROTEIN BELONGING TO THE THE SUPERFAMILY
INVOLVED IN SIGNAL TRANSDUCTION, NUCLEIC ACIDS
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                                                                                                       APPLICANT:
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ilarity 100.0%;
Conservative
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Wong, Brian
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8 US-08-971-317A-5
9 US-10-145-014-22
9 US-10-174-654-9
9 US-10-174-654-9
9 US-10-151-882-42
10 US-09-131-37-3
9 US-10-151-882-42
10 US-09-9782-980-43
10 US-09-9840-707A-14
10 US-09-940-707A-14
10 US-09-946-129B-3
10 US-09-946-129B-3
11 US-09-945-70-3
12 US-10-012-452-10
12 US-09-931-777-5
13 US-09-931-777-5
14 US-09-911-777-5
15 US-09-911-777-5
16 US-09-911-777-5
17 US-09-911-777-5
18 US-09-911-777-5
19 US-09-738-626-5707
19 US-09-764-868-71138
19 US-09-764-868-7138
10 US-09-764-868-7138
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US-10-145-014-3
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J. 3.5e-05;
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Sequence 3, Appli
Sequence 3, Appli
Sequence 5, Appli
Sequence 2, Appli
Sequence 22, Appli
Sequence 22, Appli
Sequence 3, Appli
Sequence 4, Appli
Sequence 5, Appli
Sequence 14, Appli
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Sequence 10, Appli
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SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 6 LENGTH: 268
                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 6, Application US/10185425 Publication No. US20030053984A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ouery Match 77.8%; Sometime 100.0%; I Best Local Similarity 100.0%; I Matches 14; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                            CURRENT APPLICATION NUMBER: US/10/185,425
CURRENT FILING DATE: 2002-06-28
CURRENT PRICATION NUMBER: PCT/EP00/13032
PRIOR FILING DATE: 2000-12-20
PRIOR APPLICATION NUMBER: DE 199 63 859.4
PRIOR FILING DATE: 1999-12-30
                                                                                                                                                                                                                             APPLICANT: Tschopp, Jurg
APPLICANT: Schneider, Pascal
APPLICANT: Holler, Nils
TITLE OF INVENTION: A Bimer or an Oligomer of a Dimer, Trimer, Quadromer, or Pentame:
TITLE OF INVENTION: Recombinant Fusion Proteins
FILE REFERENCE: 1708.001US1
                                                                                                                                                                                                                                                                                                    APPLICANT: Apotech Research and Development Ltd APPLICANT: Tschopp, Jurg APPLICANT: Schneider, Pascal APPLICANT: Holler, Nils
                                                                         NUMBER OF SEQ ID NOS: 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 8:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180 PKDTPEGAELKPWY 193
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APPLICATION NUMBER: US/10/017,910
FILING DATE: 14-Dec-2001
CLASSIFICATION: (Unknown)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER: 26,742
REFERENCE/DOCKET NUMBER: 600-1-200
TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-487-5800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 09/447,035
FILING DATE: 1999-11-22
ATTORNEY/AGENT INFORMATION:
NAME: Jackson Esq., David A.
REGISTRATION NUMBER: 26,742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Mus musculus SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGINAL SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear MOLECULE TYPE: protei HYPOTHETICAL: NO
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 235 amino acids TYPE: amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE: New Jersey
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn Release #1.0, Version #1.30
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Pred. No.
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5.4e-05;
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GENERAL INFORMATION:

APPLICANT: Ashkenazi, Avi J.

APPLICANT:

APPLICANT:

APPLICANT: APPLICANT:

Goddard, Audrey Gurney, Austin Marsters, Scot A.

Sequence 28, Application US/10116378 Patent No. US20020150993A1

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                                                                                                                        ; TYPE: PRT; ORGANISM: Homo sapien US-09-877-156-25
                                                                                                                                                                                                                                                                                                                                             US-09-877-156-25

Sequence 25, Applica
Patent No. US2002005
GENERAL INFORMATION:
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Best Local Similarity
Tatches 14; Conserve
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; OTHER INFORMATION: mouseTNFa aa 77-235
US-10-185-425-6
                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 4
                                                    Query Match
Best Local Similarity
Matches 10; Conserv
                                                                                                                                                                  SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 25
LENGTH: 150
                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/877,156
CURRENT FILING DATE: 2001-06-08
PRIOR APPLICATION NUMBER: US 09/286,529
                                                                                                                                                                                                                                   PRIOR FILING DATE: 1998-04-05
                                                                                                                                                                                                                                                                                               APPLICANT: Catherine Tribouley
TITLE OF INVENTION: NEW MEMBERS OF THE AND THE FAMILIES
FILE REFERENCE: 1408.003/200130.439C1
                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS: 25
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OTHER INFORMATION: Linker
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OTHER INFORMATION: mouseACRP30 aa 18-111
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OTHER INFORMATION: Linker
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            213 PKDTPEGAELKPWY 226
96 RETPEGAEAKPWY 108
                              4 KDTPEGAELKPWY 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 PKDTPEGAELKPWY 16
                                                                                                                                                                                                                                                                                                                                                                            Application US/09877156
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                                                          Conservative
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76.9%;
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Pred. No
                                                                          Score 65; I
Pred. No. 0.
                                                            Mismatches
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                                                                          DB 10;
0.021;
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6.2e-05;
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                                                                                         Length 150;
                                                            Indels
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RESULT 7
US-09-903-327A-7
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: ORGANISM: HOMO sapiens
US-09-779-050A-24
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Best Local Similarity
Watches 10; Conserve
                                                                                                                                                                                        Sequence 7, Application US/09903327A Patent No. US20020164333A1
CURRENT APPLICATION NUMBER: US/09/903,327A CURRENT FILING DATE: 2001-07-10 PRIOR APPLICATION NUMBER: 09/613,017 PRIOR FILING DATE: 2000-07-10
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                                                                                                                                                                                                                                                                                                                                                                   Matches
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Best Local Similarity
                                                     APPLICANT: Li, Erguang
TITLE OF INVENTION: BIFUNCTIONAL MOLECULES AND VECTORS COMPLEXED THEREWITH FOR TARGET
TITLE OF INVENTION: GENE
TITLE OF INVENTION: DELIVERY
FILE REFERENCE: 22908-1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; ORGANISM: Homo sapiens US-10-116-378-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn version 3.0 SEQ ID NO 24
                                                                                                                                           \PPLICANT: Nemerow, Glen R.
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Patent No. US20020160416A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/779,050A CURRENT FILING DATE: 2001-02-12
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SEQ ID NO 28
LENGTH: 150
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: BOYLE, WILLIAM
APPLICANT: HSU, HAILING
TITLE OF INVENTION: RECEPTOR FROM THE FAMILY
FILE REFERENCE: A-570B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 52
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CURRENT FILING DATE: 2002-04-04
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 09/247,225
PRIOR FILING DATE: EARLIER FILING DATE: 1999-02-09
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US 60/074,087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR FILING DATE: EARLIER FILING DATE:
PRIOR APPLICATION NUMBER: EARLIER APPLIC
PRIOR FILING DATE:
EARLIER FILING DATE:
                                                                                                                                                                                                                                                                                          98 RETPEGAEAKPWY 110
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ITLE OF INVENTION: NOVEL TUMOR NECROSIS FACTOR RECEPTOR HOMOLOG AND ITLE OF INVENTION: NCCLEIC ENCODING THE SAME
                                                                                                                                                                                                                                                                                                                          4 KDTPEGAELKPWY 16
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76.9%;
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76.9%;
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Pred. No.
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).022;
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ORGANISM: Homo sapiens US-10-043-432-1
    Query Match
Best Local Similarity
                                                                                       SOFTWARE: FastSEQ
SEQ ID NO 1
LENGTH: 157
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                                                                                                                          NUMBER OF SEQ ID NOS:
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; LOCATION: (0)...(0)
; OTHER INFORMATION: Tumor ne
; OTHER INFORMATION: peptide)
US-09-903-327A-7
                                                                                                                                     PRIOR APPLICATION NUMBER: U.S. PRIOR FILING DATE: 1991-03-18
                                                                           TYPE: PRT
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                                                                                                                                                                           PRIOR APPLICATION NUMBER: U
                                                                                                                                                                                                                    'RIOR APPLICATION NUMBER: U.S'
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                                                                                                                                                                                                                                                                             PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
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PRIOR APPLICATION NUMBER: U.S. 09/133,119
PRIOR FILING DATE: 1998-08-12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILE REFERENCE: 0975.1005-013
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Le, Junming
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
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ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                     R APPLICATION NUMBER: U.S. R FILING DATE: 1995-12-11 NR APPLICATION NUMBER: U.S. NR FILING DATE: 1994-10-18
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                                                                                                                                                                                             FILING DATE: 1992-09-11
                                                                                                                                                                                                          APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Daddona, Peter
Ghrayeb, John
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Knight, David M.
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                                                                                                       for Windows Version 4.0
                                                                                                                                                                                                                                             1993-01-29
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     60.2%;
76.9%;
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76.9%;
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  Score
Pred.
                                                                                                                                                                          07/853,606
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Pred. No.
  No.
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DB 9;
0.022;
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0.022;
        Length 157;
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Matches

10;

Conservative

2;

Mismatches

1;

Indels

0; Gaps

0;

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SEQ ID NO 1
LENGTH: 157
TYPE: PRT
ORGANISM: Homo sapiens
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US-09-927-703-1
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PRIOR APPLICATION NUMBER: U.S. 09/133,119

PRIOR FILING DATE: 1998-08-12

PRIOR APPLICATION NUMBER: U.S. 08/570,674

PRIOR FILING DATE: 1995-12-11

PRIOR APPLICATION NUMBER: U.S. 08/324,799

PRIOR FILING DATE: 1994-10-18

PRIOR APPLICATION NUMBER: U.S. 08/192,102

PRIOR APPLICATION NUMBER: U.S. 08/192,102

PRIOR APPLICATION NUMBER: U.S. 08/192,102

PRIOR FILING DATE: 1994-02-04
                                                                                                            APPLICANT: Le, Junm
                                                                                                                                                      Sequence 1, Application US/09927703 Patent No. US20020022720A1
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Best Local S
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    APPLICANT:
                                           APPLICANT:
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Patent No. US20010027249A1
                                                                                       APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 19
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FILING DATE: 1994-02-04
APPLICATION NUMBER: U.S. 08/192,093
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FILING DATE: 1993-01-29
APPLICATION NUMBER: U.S. 08/013,413
FILING DATE: 1993-02-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 1994-02-04
Daddona, Peter
Ghrayeb, John
Knight, David M.
Siegel, Scott
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Ghrayeb, John
                                                                                    Vilcek, Jan
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                                                                                                              Junming
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                                                                                                                                                                                                                                                                                                                                                                                        60.2%;
76.9%;
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; ORGANISM: Homo sapiens US-09-854-280-19
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-927-703-1
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US-09-854-280-19
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PRIOR APPLICATION NUMBER: U.S. 09/133/119
PRIOR APPLICATION NUMBER: U.S. 09/133/119
PRIOR FILING DATE: 1998-08-12
PRIOR APPLICATION NUMBER: U.S. 08/570,674
PRIOR APPLICATION NUMBER: U.S. 08/324,799
PRIOR FILING DATE: 1994-10-18
PRIOR APPLICATION NUMBER: U.S. 08/192,102
PRIOR APPLICATION NUMBER: U.S. 08/192,102
PRIOR APPLICATION NUMBER: U.S. 08/192,861
PRIOR APPLICATION NUMBER: U.S. 08/192,861
PRIOR APPLICATION NUMBER: U.S. 08/192,93
PRIOR APPLICATION NUMBER: U.S. 08/192,093
PRIOR FILING DATE: 1994-02-04
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SOFTWARE: FastSEQ for
SEQ ID NO 1
                                                                                                   SEQ ID NO 19
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APPLICANT: Filva
APPLICANT: Godda
APPLICANT: Gurne
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Best Local Similarity
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                                                                                                                                                PRIOR FILING DATE: 1998-05-15
PRIOR APPLICATION NUMBER: US 60/113,621
PRIOR FILING DATE: 1998-12-23
                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: US 60/085,579 PRIOR FILING DATE: 1998-05-15
                                                                                                                                                                                                                                                 CURRENT FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: US 09/311,832
PRIOR FILING DATE: 1999-05-14
                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/854,280 CURRENT FILING DATE: 2001-05-10
                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Wood, William I.
TITLE OF INVENTION: IL-17 HOMOLOGOUS POLYPEPTIDES AND THERAPEUTIC USES THEREOF
FILE REFERENCE: P1381R1C2
                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                               NUMBER OF SEQ ID NOS: 26
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PRIOR FILING DATE: 1992-03-18
PRIOR APPLICATION NUMBER: U.S.
PRIOR FILING DATE: 1991-03-18
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CURRENT FILING DATE: 2001-08-10
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                                                LENGTH: 157
TYPE: PRT
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OR FILING DATE: 1993-01-29
OR APPLICATION NUMBER: U.S.
OR FILING DATE: 1993-02-02
OR APPLICATION NUMBER: U.S.
OR APPLICATION NUMBER: U.S.
OR FILING DATE: 1992-09-11
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1991-03-18
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76.9%;
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Pred. No. 0.022;
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CURRENT APPLICATION NUMBER: US/09/766,535A
PRIOR APPLICATION NUMBER: US 09/133,119
PRIOR FILING DATE: 1998-08-12
PRIOR APPLICATION NUMBER: US 08/570,674
PRIOR APPLICATION NUMBER: US 08/570,674
PRIOR APPLICATION NUMBER: US 08/324,799
PRIOR APPLICATION NUMBER: US 08/324,799
PRIOR PILING DATE: 1994-01-18
PRIOR APPLICATION NUMBER: US 08/192,102
PRIOR APPLICATION NUMBER: US 08/192,102
PRIOR APPLICATION NUMBER: US 08/192,861
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SEO ID NO 13
LENGTH: 157
TYPE: PRT
ORGANISM: Homo sapiens
US-09-934-465-13
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US-09-766-535A-1
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PRIOR APPLICATION NUMBER: U.S. 08/013,413 PRIOR FILING DATE: 1993-02-02
                              PRIOR APPLICATION NUMBER: U.S. 08/192,093
PRIOR FILING DATE: 1994-02-04
PRIOR APPLICATION NUMBER: U.S. 08/010,406
PRIOR FILING DATE: 1993-01-29
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/ Sequence 13, Application US/09934465

/ Patent No. US20020102233A1
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TITLE OF INVENTION: Anti-TNF Antibodies and Peptides
TITLE OF INVENTION: Human Tumor Necrosis Factor
FILE REFERENCE: 0975.1005-010
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CURRENT FILING DATE: 2001-08-21
PRIOR APPLICATION NUMBER: 08/584,031
PRIOR FILING DATE: 1996-01-09
NUMBER OF SEQ ID NOS: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
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TITLE OF INVENTION: APO-2 LIGAND
FILE REFERENCE: 11669.220303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
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Ghrayeb, John
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76.9%;
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76.98;
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Pred. No. 0.
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Pred. No. 0.022;
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GENERAL INFORMATION:

APPLICANT: Le, Junming
APPLICANT: Vilcek, Jan
APPLICANT: Daddona, Peter
APPLICANT: Ghrayeb, John
APPLICANT: Knight, David M.
APPLICANT: Siegel, Scott
TITLE OF INVENTION: Anti-TNF Antibodies and Peptides
TITLE OF INVENTION: Human Tumor Necrosis Factor
                                                                                                                                                                               RESULT 15
US-09-756-161A-1
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                                                                                                                                             Sequence 1, Application US/09756161A
Patent No. US20020132307A1
                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                        Best
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PRIOR APPLICATION NUMBER: US 60/113,621
PRIOR FILING DATE: 1998-12-23
NUMBER OF SEQ ID NOS: 26
SEQ ID NO 19
LENGTH: 157
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Matches
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APPLICANT: Wood, William I.
TITLE OF INVENTION: IL-17 HOMOLOGOUS POLYPEPTIDES AND THERAPEUTIC USES
FILE REFERENCE: P1381-R1
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Patent No. US20020106743A1
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APPLICANT: Filvaroff,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Homo sapiens
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76.9%;
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76.9%;
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Pred. No.
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CURRENT APPLICATION NUMBER: US/09/756.161A

CURRENT FILING DATE: 2001-01-08

PRIOR APPLICATION NUMBER: US. 09/133.119

PRIOR APPLICATION NUMBER: US. 08/570.674

PRIOR APPLICATION NUMBER: US. 08/570.674

PRIOR APPLICATION NUMBER: US. 08/324.799

PRIOR APPLICATION NUMBER: US. 08/324.799

PRIOR APPLICATION NUMBER: US. 08/192.102

PRIOR APPLICATION NUMBER: US. 08/192.102

PRIOR APPLICATION NUMBER: US. 08/192.093

PRIOR APPLICATION NUMBER: US. 08/010.406

PRIOR APPLICATION NUMBER: US. 08/013.413

PRIOR APPLICATION NUMBER: US. 07/943.852

PRIOR APPLICATION NUMBER: US. 07/943.852

PRIOR APPLICATION NUMBER: US. 07/953.606

PRIOR APPLICATION NUMBER: US. 07/953.606

PRIOR APPLICATION NUMBER: US. 07/670.827

PRIOR APPLICATION NUMBER: US. 07/670.
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